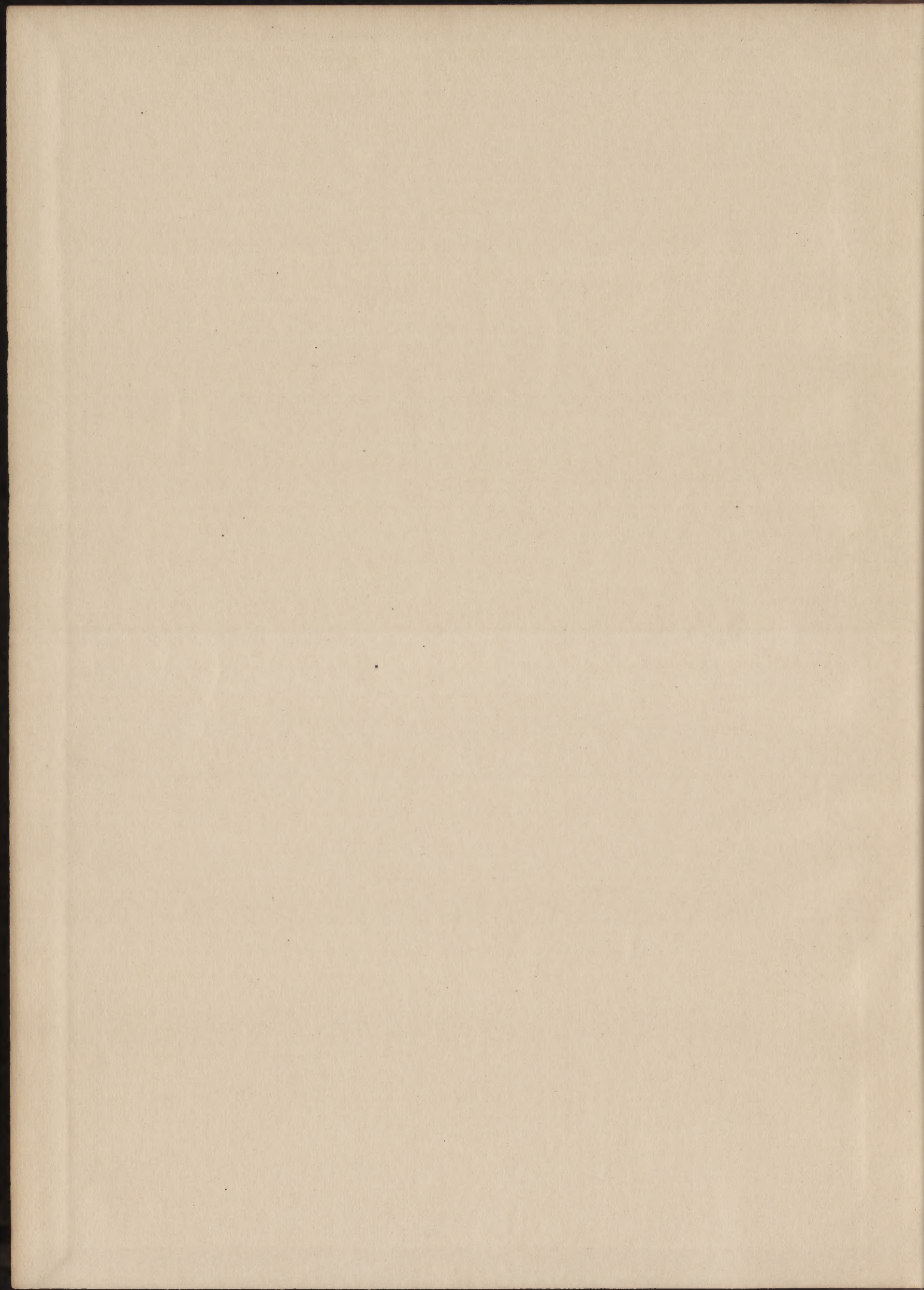


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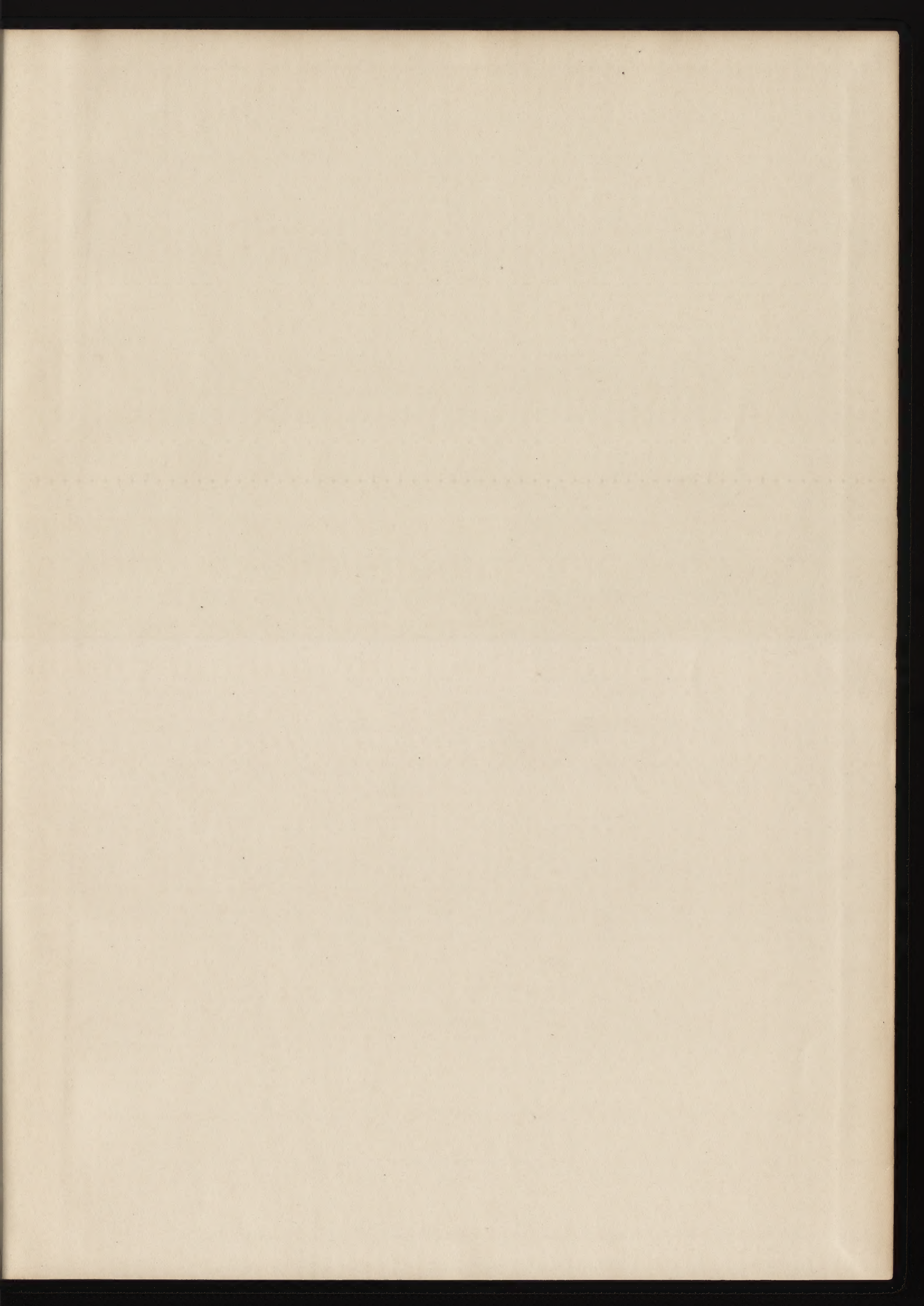














PENCIL POINTS



# PENCIL POINTS

Volume VII

JANUARY, 1926

Number 1

## THE ARCHITECTURAL SENSE

IT WOULD APPEAR THAT few architectural draftsmen have revealed to them at the outset of their careers a vision of what we may call the "architectural sense," the faculty by which are perceived the laws of composition, regulating the relation of parts; the laws of proportion, giving proper value to the separate features and the most rigid law of all, that the different parts and features shall form a unified and harmonious whole. Such a sense often seems to dawn by happy accident, sometimes not until mature age, and sometimes never.

We have wondered how many of the 25,000 to 30,000 architectural draftsmen in this country who have taken up architecture as a career have been led to do so by an irresistible impulse—by the conviction that it afforded the one outlet for their talents—or have had it chosen for them by well meaning parents. In the cases of men who have had a strong underlying urge toward the deliberate selection of architecture for their life work,—have they been actuated by the hope of erecting just buildings rather than by any prompting toward the creation of architectural masterpieces? Have they the ambition to shine in the highest realms of the profession rather than the aspiration to express themselves through architecture?

The profession of architecture is one of those that must assume at the outset a business side. One's career commences in an office, a very different place from a studio, and it takes years before the real meaning of architecture has an opportunity of unfolding itself. The draftsman may discover that he has a brain that loves facts and so, while proving an excellent exponent of the business side of his profession, fail ever to "find himself"—fail that is, to develop the architectural sense. If, on the other hand, he becomes conscious of the direction of his creative powers, the very realization of this ability at a critical period is a stimulus to genius. Genius is the materialization of great things created in the mind. Erudition sometimes checks initiative, and scholarship, by itself does not develop the creative spirit; a truly great architect must be able to do all that and more than the architect who has had all the architectural training in the world.

The wide scope of architectural practice has room for all sorts of men because of the many classes of structures required by our modern life. The range varies from monumental buildings whose sole purpose is beauty to the structures erected in the most

economical way possible for utilitarian purposes in which the architect has no funds to express elegantly the uses of the building and which can be redeemed from banality only by the man whose sense of proportion is so exquisite, that he is able to adjust the different parts without detracting from the practical needs, to achieve a result which is aesthetically satisfactory.

It may be that most men practising architecture think they have the architectural sense, but in many cases their work proves they are mistaken. This is an evidence of the fact that either the spark of genius is dim or else their study and knowledge are insufficient for them to tell whether or not they are blessed with the architectural sense. In the final analysis it will be found by each individual that all temperaments do not possess the creative faculty of an architectural designer. Of course, application, serious study and experience will generate in any draftsman a certain ability to put things together on paper, but whether the finished building is a simple and direct expression of the needs of the problem depends primarily upon whether an architectural sense was there to pull the elements together into the harmonious whole.

Unbiased analysis of one's special aptitudes is the answer to the question as to the ultimate destiny of the architectural draftsman. After several years' experience in an architect's office, a man should be able to tell whether he is simply a "pencil pusher" or a potential architect. If the former, he should seek an outlet for his "pencil pushing," a talent which would fit him, perhaps for the mechanical or for the administrative side of the profession; if the latter, he will find by this self-analysis and by the Boss's comments that he is destined for the "long-haired" end of the office, which in turn leads to the gold medals and the sashes of the Legion of Honor.

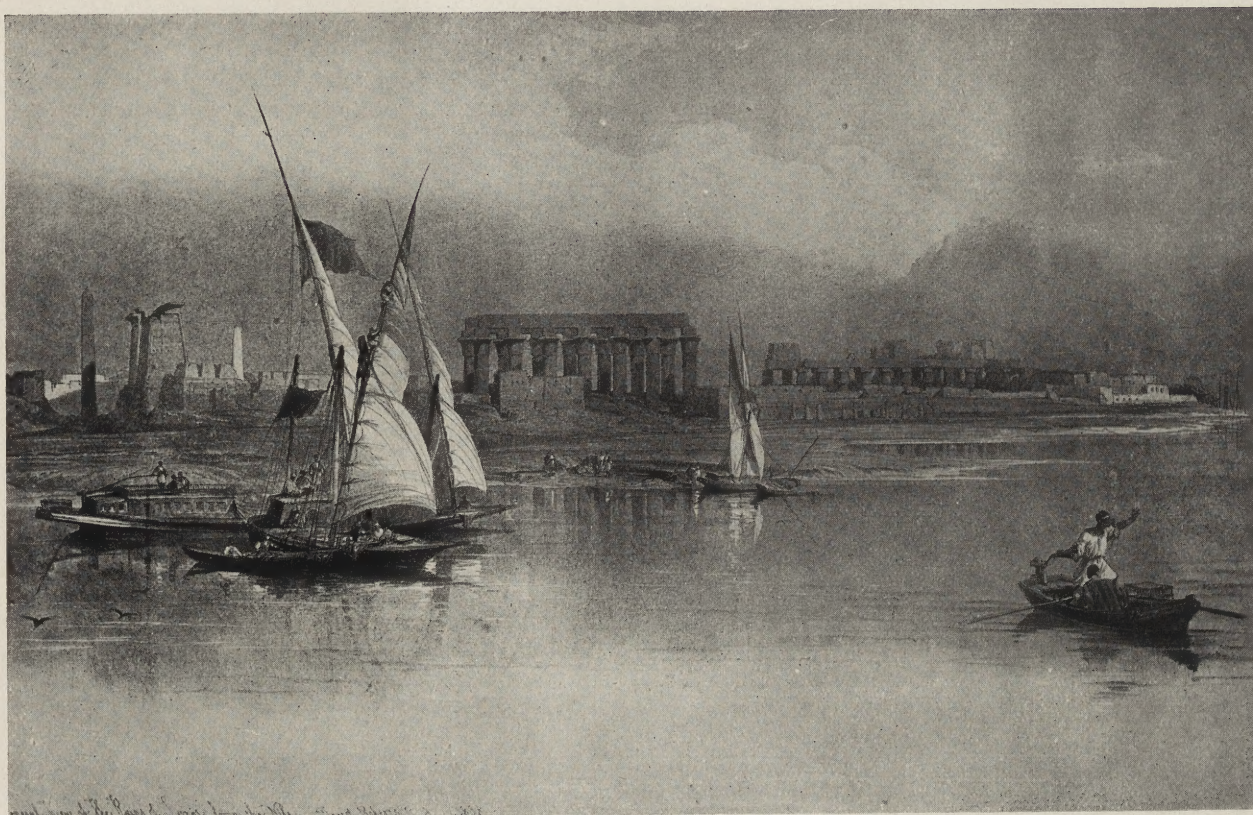
To the Editor this opens an interesting discussion; to the draftsmen it is vital that he know himself, his entire career depends upon his ability to "add himself up." Opinions that would assist him to reach a definite conclusion would be welcomed. No doubt the airing of various personal experiences would be of great help to many men who are groping in the dark. All those who have given thought to whether or not they have the architectural sense are invited to lay their "Self-Analysis Sheet" on the Editor's Table, and we will see that everything of value is handed on where it will do the most good.





GREAT HALL AT KARNAC, THEBES  
LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*





GENERAL VIEW OF THE RUINS OF LUXOR FROM THE NILE

## THE RENDERINGS OF AN EARLY MASTER

SELECTIONS FROM THE FIELD SKETCHES OF DAVID ROBERTS, R.A.  
LITHOGRAPHED BY L. HAGHE TO ILLUSTRATE "EGYPT AND NUBIA"

*By Kenneth Clark*

IN THIS AGE OF GREAT architectural delineators, it seems, at first sight, as though there would be little to be learned from the work of famous renderers of a generation or so ago, but from one point of view alone we find our 20th century complacency jolted. The modern renderer expresses the architect's point of view perfectly, but he seems to have a tendency to forget the primary object of most renderings,—the translation of an architectural scheme from technical to secular language—and to subordinate it to the creation of a masterpiece of draftsmanship. If the rendering is made for purposes of study and to be viewed in the office by the architecturally trained eye, well and good, but if, as is usually the case, it is made for the purpose of translating the scheme of the architect into language understandable to the layman, i.e. the client, many of them fail to accomplish their purpose. Perhaps their failure is due to their lack of the human touch, the "naturalness" or "picture" quality, so to speak, which, without detracting from the architectural value of the renderings, can add decidedly to their ability to interpret to the eye untrained in the conventionalities

of "rendering" what the architect wishes to express. The renderings of today have a decided tendency toward "architectural" feeling, beautifully drawn, presented to the nth degree, using all the niceties of an architectural technique, they are masterpieces in their way, but that way is the way of the architects, not always of the clients. A perspective that seems entirely adequate to the architect, to the client may be just another drawing that has to be explained before its beauties and those of its subject begin to dawn, as a representation of the "job."

One of the pioneer delineators of this country, Mr. Hughson Hawley, was one of the most "popular" the profession has produced. Today his work looks mid-Victorian but with all its faults, measured by later standards, it still had a popular appeal that the most beautiful "architectural" drawing lacks. His buildings were of brick and stone, not white paper and India ink; his skies were blue with real clouds in them, which cast cloud shadows in a fascinating way across even the most monotonous of facades. His streets were full of people who were doing something, not just figures, gaitered and caned,



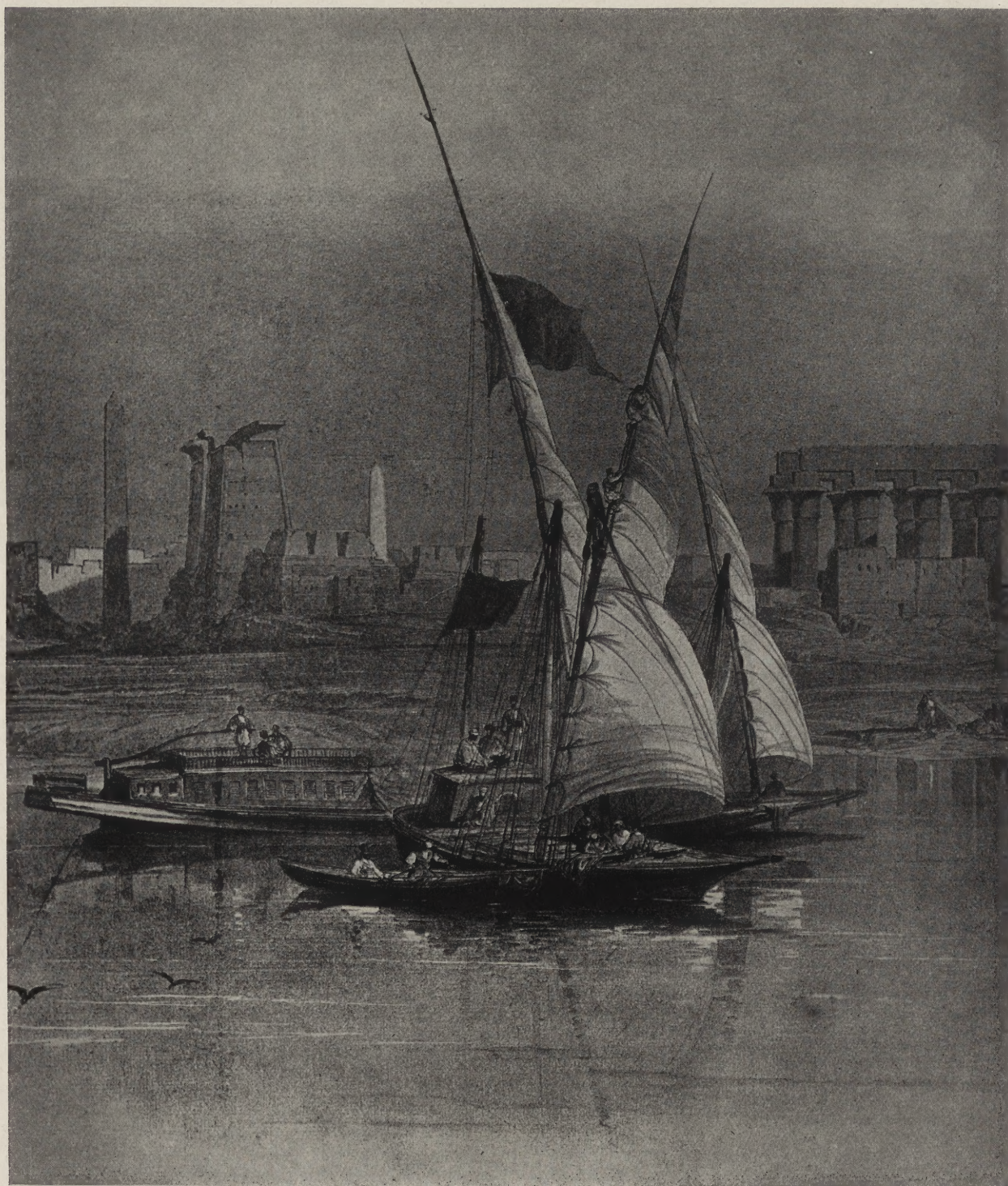
## PENCIL POINTS

obligingly standing still to give scale to the building.

It seems as though there were some happy medium between these two styles, the Architectural and the Popular, that could be struck, and in the accompanying selections from the work of David Roberts, R. A., there may be found some suggestion of this desired welding.

David Roberts, was born in England in 1796, the

son of a shoemaker. Pegging shoes evidently did not suit his artistic temperament, so he ventured forth along a path of his own choosing, progressed through various stages, becoming first a scene painter and then a painter of easel pictures; for a time, at the height of his career he was quite the vogue in London. In middle life he traveled extensively in search of material and of this period he has left a



DETAIL AT FULL SIZE OF ORIGINAL LITHOGRAPH SHOWN ON PAGE 3



THE RENDERINGS OF AN EARLY MASTER

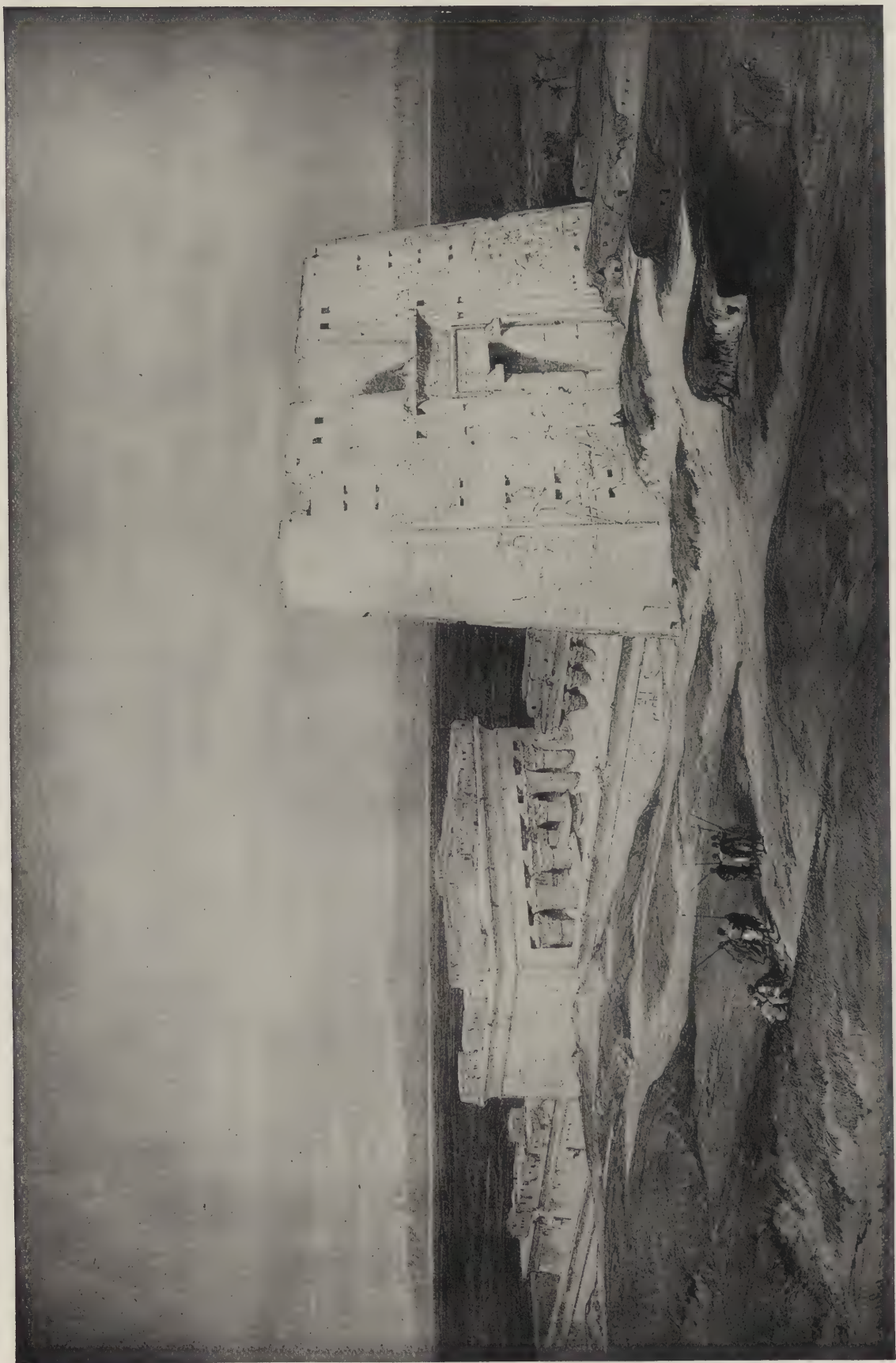


OBELISK AT LUŽOR

LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A

*From ROBERTS', "Egypt and Nubia"*





TEMPLE AT EDFOU, UPPER EGYPT  
LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*





PORTICO OF THE TEMPLE AT EDFOU, UPPER EGYPT  
LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*



## PENCIL POINTS

monumental record in his volumes of "Sketches From Spain," "Sketched from Italy," "Egypt and Nubia" and the "Holy Land," all with lithographic illustrations. For the first two books of "Sketches" he made the lithographs himself, but for the other two, his sketches made "on the spot" were lithographed for reproduction; Messrs. Harding and Louis Haghe doing the "Holy Land," and Haghe by himself doing the volumes on "Egypt and Nubia."

The original volumes on "Egypt and Nubia" from which our illustrations are taken, were published in London in 1846 by F. G. Moon, and are most

ordinary graphite lead. After the image is drawn the stone is wet and then an inking roller is passed over it, the greasy lines retain the ink, the wet surface of the stone repels it, and when a piece of paper is rolled down upon it, the inked lines are transferred, making the final lithographic print. There are slight variations of the process, in one of which the drawing is made on paper and then transferred to the stone, after which the proof is pulled in the usual way. This allows the draftsman to work direct, that is, to draw the image in its correct relation from right to left, for when working on the stone direct,



VIEW FROM UNDER THE PORTICO OF THE TEMPLE AT EDFOU, UPPER EGYPT

sumptuous examples of the bookmakers' craft.

The sense of scale so necessary in the representation of the huge ruins that form the subjects of the series is admirably expressed though perhaps a bit over accentuated by making the figures a trifle small, but this method adds to the vastness and majesty of the Egyptian architecture.

The draftsmanship is masterly, always sure. The lines in themselves are worthy of careful study. The modelling of the surfaces is done in pure line only, here one finds no meaningless scribbling, every individual line has a meaning and a function to perform in making up the whole; were one left out, it would be missed. This is the true artistry of pen or pencil drawings, as it is also of etching and lithography.

The latter medium is to all intents and purposes simply pencil drawing. The artist works on a smoothly polished stone with a crayon or pencil which has a greasy marking substance instead of the

the drawing has to be done reversed, in order to have the final print read correctly. These lithographs of Haghe's were probably made direct on the stone from the sketches done in the field by Roberts.

The accuracy of perspective in these drawings is particularly worth study; the most intricate problems are solved perfectly, for instance, the drawing of the bells of the "Lotus" capitals where they occur near the picture plane, they look so simple and are drawn so precisely that the nicety of the problem is minimized, but anyone who has tried it knows how difficult it is to make one *look* right.

Finally, to get back to our first contention, these drawings are excellent examples of architectural delineation judged by the architect's requirements, they also possess to a marked degree the human touch; the figures have the flesh and blood feeling in them and a reason for being beyond that of the element of scale; they are part of the picture and they "fit."



THE RENDERINGS OF AN EARLY MASTER



DETAIL AT FULL SIZE OF ORIGINAL LITHOGRAPH SHOWN ON PAGE 8



PENCIL POINTS



LYBIAN CHAIN OF MOUNTAINS FROM THE TEMPLE OF LUXOR



GENERAL VIEW OF THE ISLAND OF PHILAE

LITHOGRAPHS BY L. HAGHE FROM DRAWINGS BY DAVID ROBERTS, R. A.

*From ROBERTS', "Egypt and Nubia"*

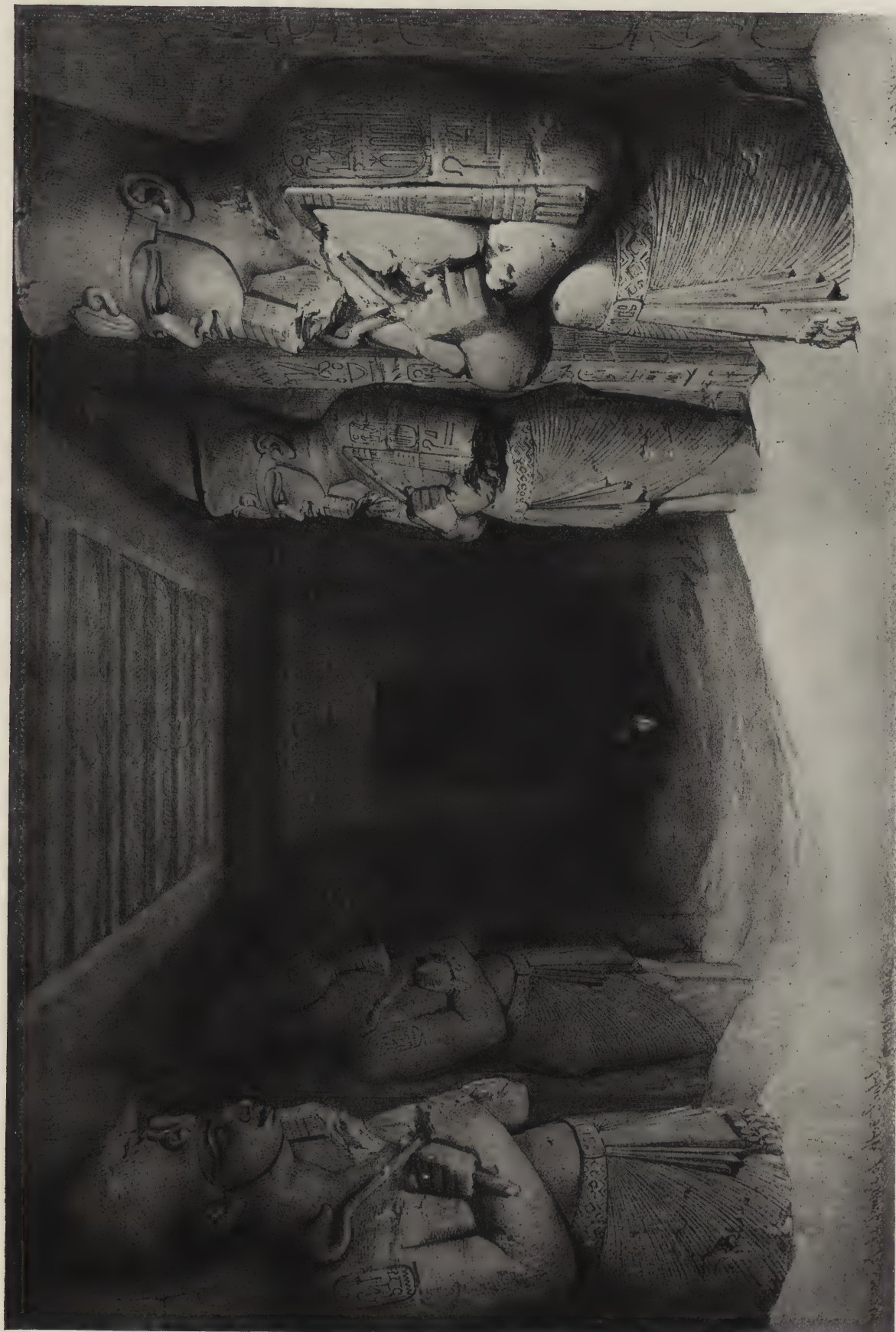


THE RENDERINGS OF AN EARLY MASTER



DETAIL AT FULL SIZE OF ORIGINAL LITHOGRAPH SHOWN ON PAGE 10





INTERIOR OF THE TEMPLE OF ABOO SIMBEL  
LITHOGRAPHED BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*





THE GREAT TEMPLE OF ABOO SIMBEL  
LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*





DETAIL AT FULL SIZE OF ORIGINAL LITHOGRAPH SHOWN ON PAGE 13



THE RENDERINGS OF AN EARLY MASTER



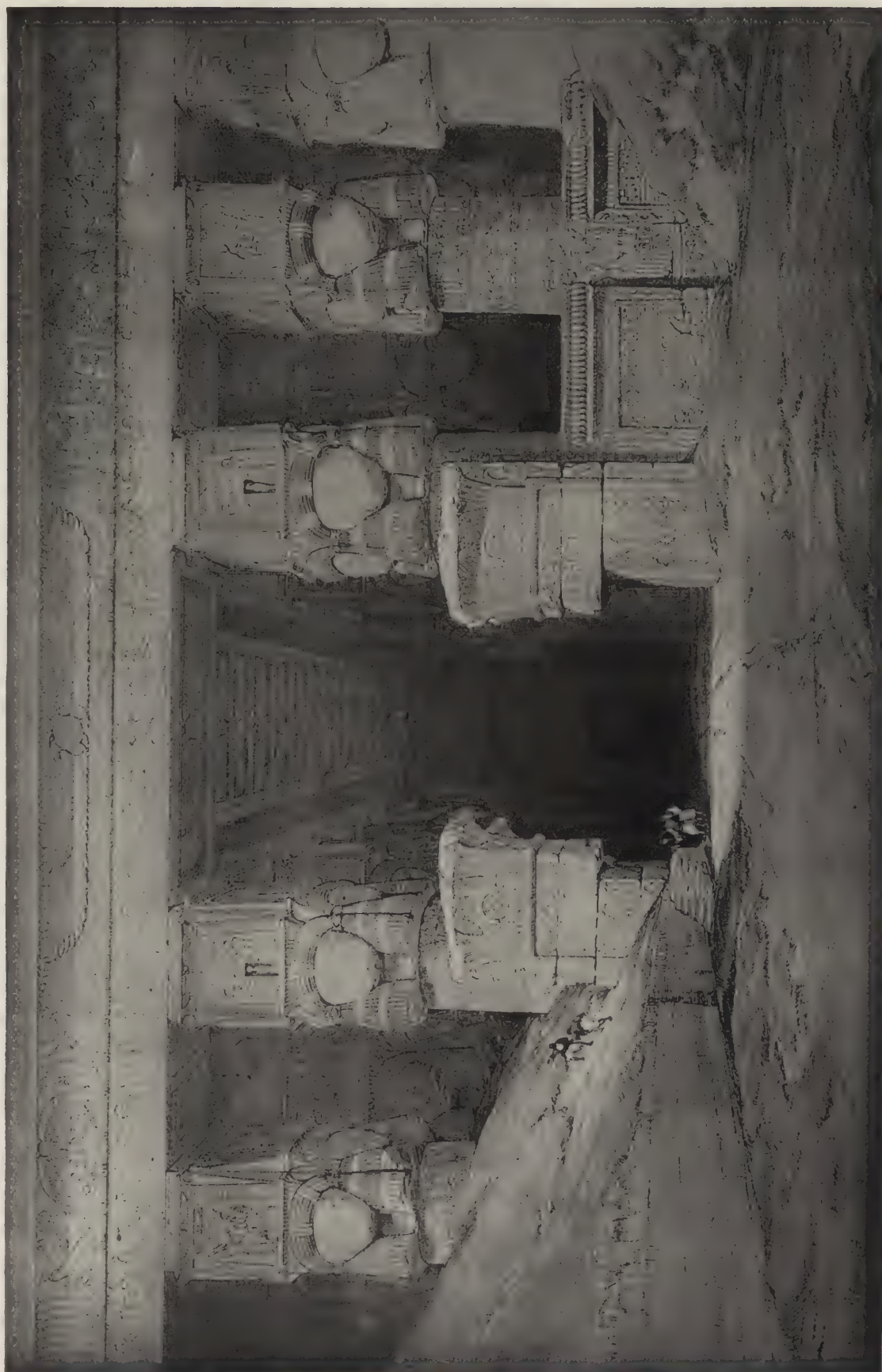
DETAIL AT FULL SIZE OF ORIGINAL LITHOGRAPH SHOWN ON PAGE 16





TEMPLE AT ESNEH  
LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS', "Egypt and Nubia"*





DENDERA

LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.

*From ROBERTS', "Egypt and Nubia"*





GRAND PORTICO OF THE TEMPLE OF PHILAE  
 LITHOGRAPH BY L. HAGHE FROM DRAWING BY DAVID ROBERTS, R. A.  
*From ROBERTS, "Egypt and Nubia"*





*Figure 1—Perspective Sketch Study*

## DESIGN IN THE DRAFTING ROOM

### PART VI

*By John C. Breiby*

IN THE COURSE OF these articles, appearing from time to time under the title of "Design in the Drafting Room," I have mentioned that this heading does not mean merely the so-called soft pencil sketches, but also includes all work which the architect and draftsman are called upon to do, from the first sketches on, until the real goal—a completed structure—is reached. Also, may I reiterate that architectural drawings are prepared only as instruments of service, and should be so considered?

We are all deeply interested in the working drawing phase of our work, and a well presented set of such drawings makes an interesting document, for it is a part of design, though perhaps we are all more tempted to look at and admire sketches than plans, elevations and perspectives in their process of development. As we are all so familiar with working drawings, I have selected the more buoyant side of the work for the illustrations for my articles, without any outlined program or sequence,

so that they may broaden our horizon by showing how different draftsmen draw or indicate their studies or finished drawings. I must state, however, that, no matter how clever an individual draftsman may be in draftsmanship or design, his work must always be governed by those from whom he receives his income for service rendered, and though particular drawings will tell of individual ability, the influence of the master designer, who is the architect, must always be felt, and the draftsman must follow the traditions of the particular office where he is employed. This need not, however, destroy any personal knacks or individuality of work.

Figure No. 1 illustrates a perspective sketch study for an indoor tennis court, with cottage attached. This drawing was made with colored crayons, rendered in a delightful way, and the values of architectural relationship are well brought out. The colors, unfortunately, are not reproduced here, but if one can visualize the completed



*Figure 2*

DEVELOPMENT STUDY OF MAIN FACADE, INDOOR TENNIS COURT



## PENCIL POINTS

structure better by the use of color on his drawings, the best results will be obtained by working in this medium. It is a fascinating and inspiring way to study a problem, but its use is up to the individual, and also dependent upon the character of the project, which often dictates the method of study.

Figure No. 2 illustrates a more developed elevation study of the building shown by Figure 1. More preciseness is indicated, architectural treatment is more detailed. This drawing was also studied in color. The project presented a difficult problem, as the housing of the tennis court was determined by set rules for size in plan and height, and many studies were made to carry the roof of the main building down to form part of the roof of the cot-

Figure No. 7 shows a free hand sketch study of a tower, surmounting the top of a large building. This is a very free study.

Figure No. 8 shows a very careful line drawing of the tower illustrated by Figure No. 7. This drawing indicates clearly the importance of study sketches to the final line drawing.

Figure No. 9 shows a carefully prepared drawing of one side of a reception room, now installed in a large, modern and monumental commercial building. This drawing was made at the scale of one half inch to the foot, and is the final study before it was traced on cloth. Shaded values in pencil clearly assisted the designer to know how the finished work would appear. This is a splendid drawing, and well



Figure 3

THREE-QUARTER INCH SCALE PENCIL STUDY OF COTTAGE SHOWN IN FIGURE 2

tage. More or less displeasing results were obtained, so it was decided to allow the cottage to be attached, giving a more intimate character to that portion.

Figure No. 3 is a reproduction of a three-quarter inch scale study showing a part of the cottage attached to the indoor tennis court. More decided development has been arrived at. No special comments are necessary about this drawing.

Figures Nos. 4 and 6 show three walls of a display room in the same building as that noted under Figure No. 9. These are one-quarter inch scale studies with some crayon color added to the line drawn studies. The proportions and placing of paintings on the wall are carefully worked out, and have again proven their value in the completed work.

Figure No. 5 shows the final study of the ceiling for the room illustrated by Figures 4, 5 and 9—no special comments need be made regarding this drawing, as it would appear to speak for itself.

worth the effort, to which the completed work now testifies.

Figure No. 10 is a careful and beautiful study of a stair hall and stairs. Attention is called to the color values produced by the delicate wrought iron railing, splendidly designed lantern, vaulted pointed arches with small semi-classic caps forming cusps at the spring line of the arches. This, of course, is a developed study, arrived at from other sketches, made from studies.

Figure No. 11 shows a study of a circular dome ceiling treatment. This is a clean-cut drawing, and has reached the final study stage. Observe how charmingly the ornament has been delineated with a few spots of deep color suggested. This drawing will tell the story, when incorporated with the general scale working drawings.

While most of the drawings selected as illustrations for this installment were beyond the early free hand sketch stage, I am endeavoring to present various mediums in which studies may be made. All

(Continued on page 25)



# DESIGN IN THE DRAFTING ROOM



Figure 4

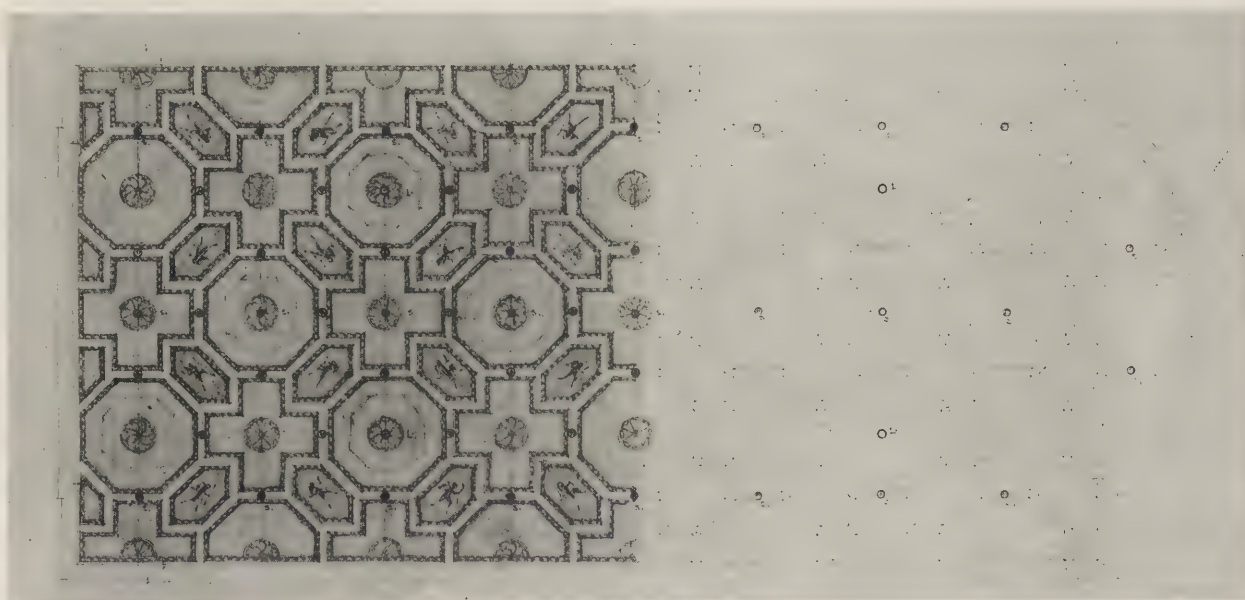


Figure 5



Figure 6

PENCIL AND COLORED CRAYON STUDIES OF THREE WALLS AND THE FINAL STUDY OF THE  
CEILING FOR A DISPLAY ROOM IN A MONUMENTAL COMMERCIAL BUILDING

*Reproduced from 1/4 inch Scale Drawings*



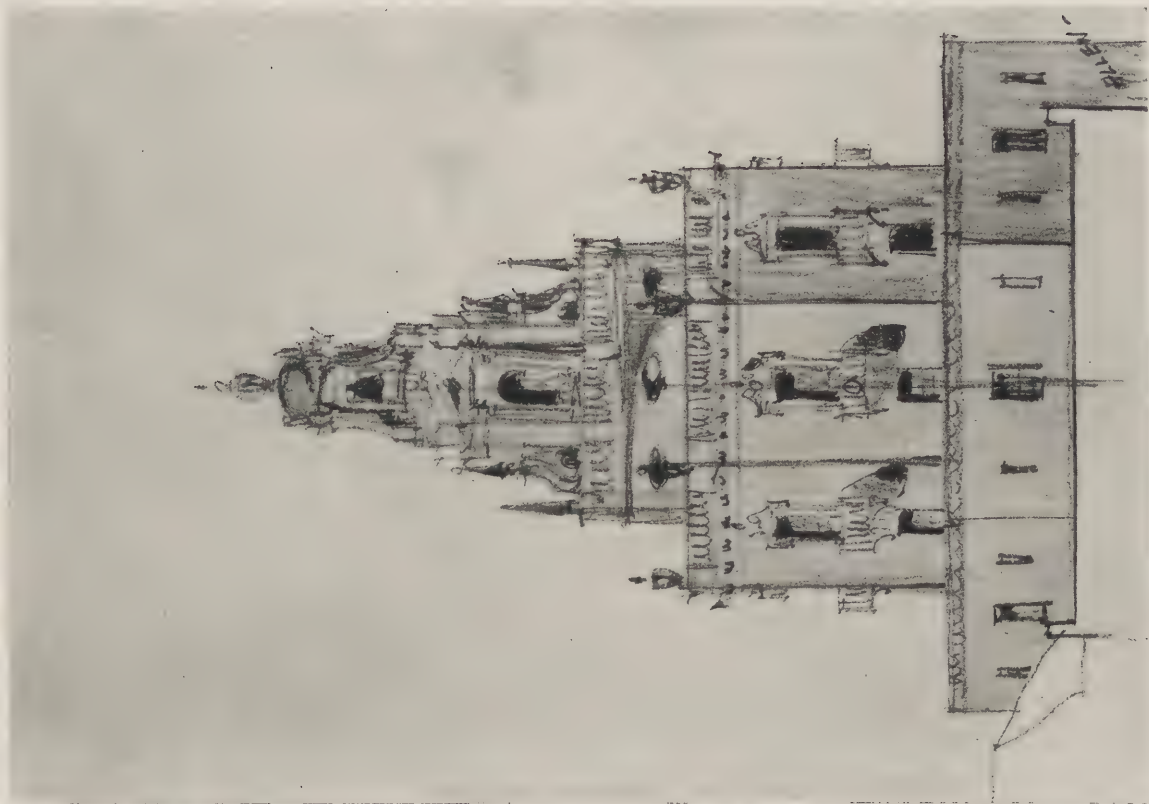


Figure 7

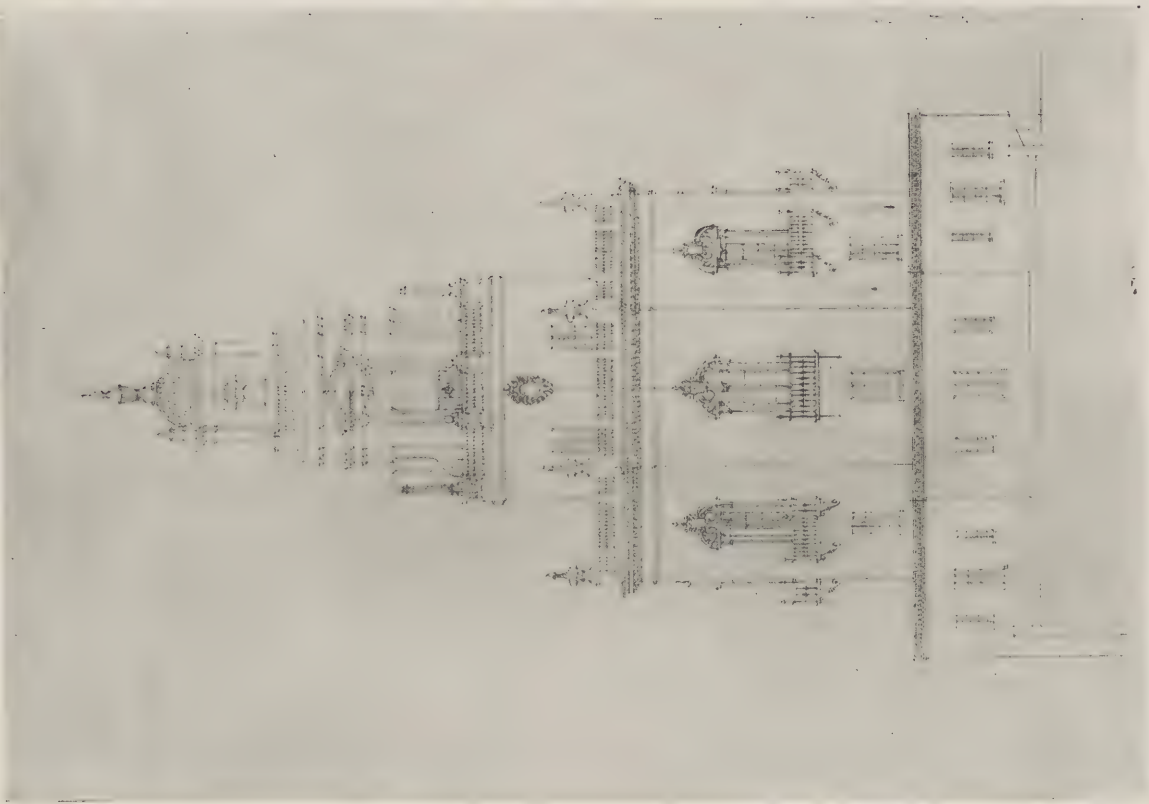


Figure 8

FREE HAND SKETCH STUDY AND CAREFUL LINE DRAWING OF A TOWER



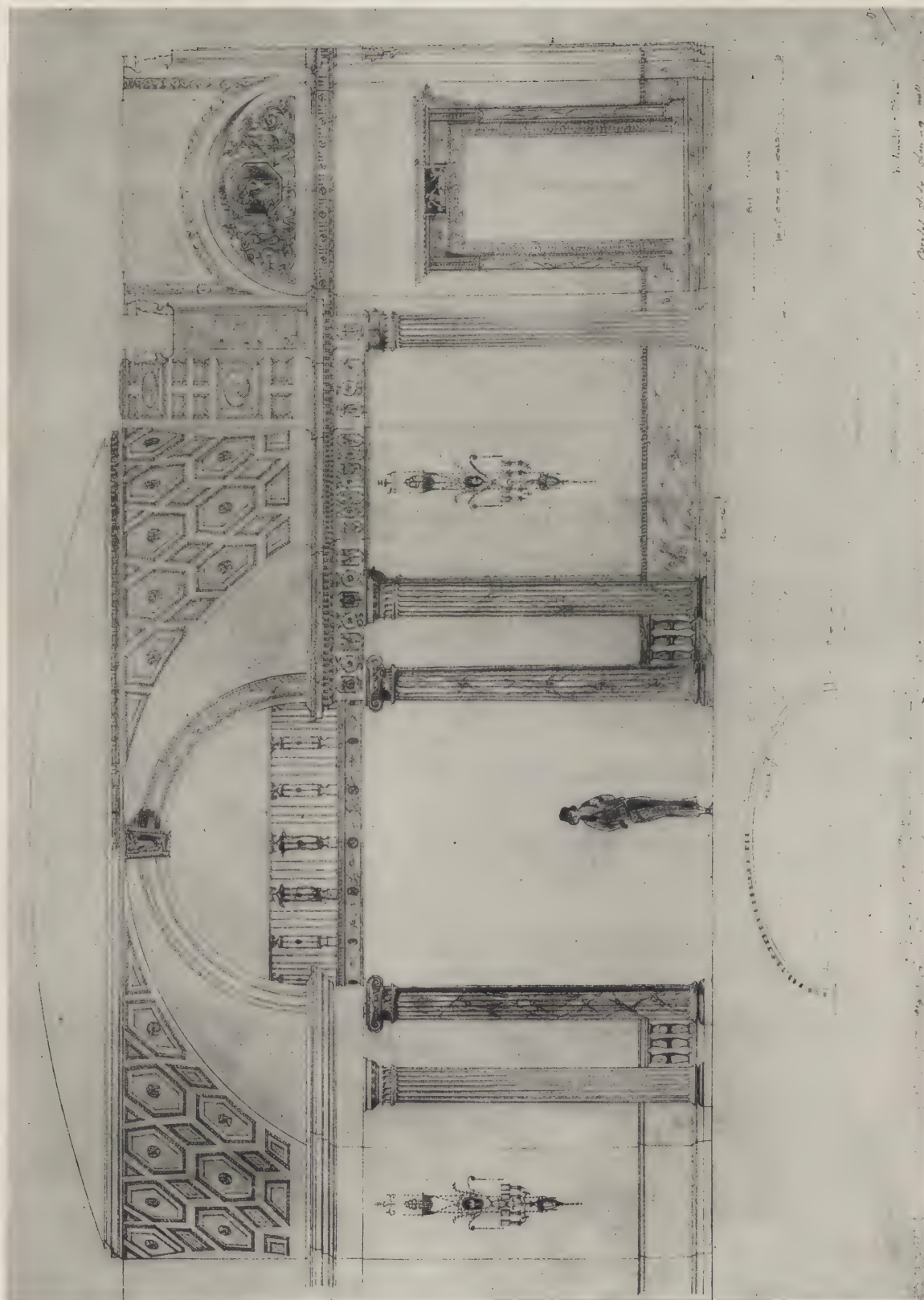


Figure 9

CAREFUL STUDY SHOWING WALL AND CEILING TREATMENT OF A RECEPTION ROOM IN AN IMPORTANT BUILDING



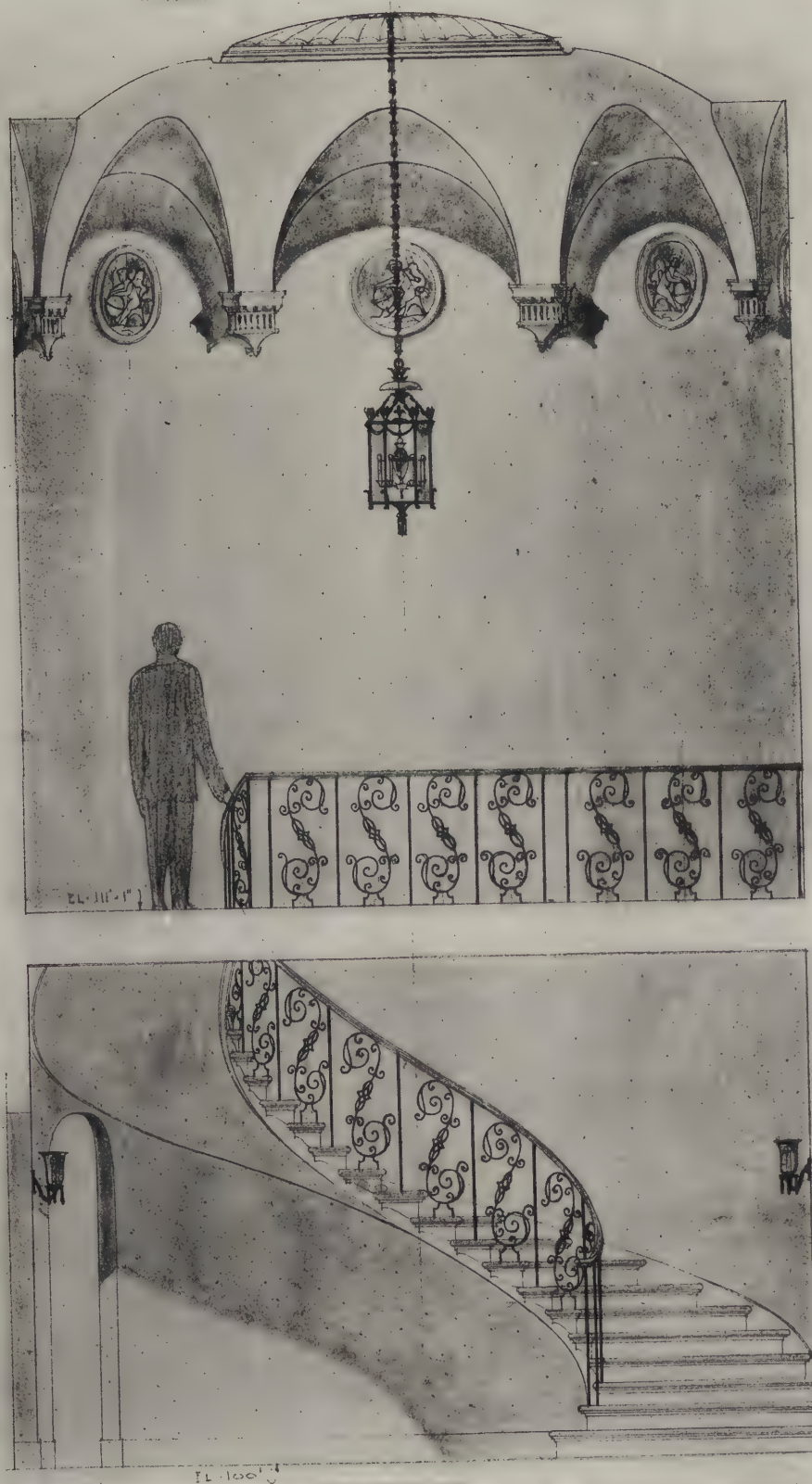


Figure 10  
STUDY OF A STAIR HALL AND STAIRS



## DESIGN IN THE DRAFTING ROOM

draftsmen have their individual methods and technique, but for the younger men I will again say: Use your pencil and learn to use it freely. It is the only instrument through which you may outwardly express the thoughts of your imagination. After a free and easy way of sketching or drawing has been achieved, individual beauty in the style of the draw-

knows how to read it, your work will always look just like you. If you express weakness or sincerity, so will your work. If you express nervousness and jerkiness, your design will show interference of motives. You will choose broken pediments and interrupted outlines as a natural result of your nervousness, whereas if you are robust and calm you will

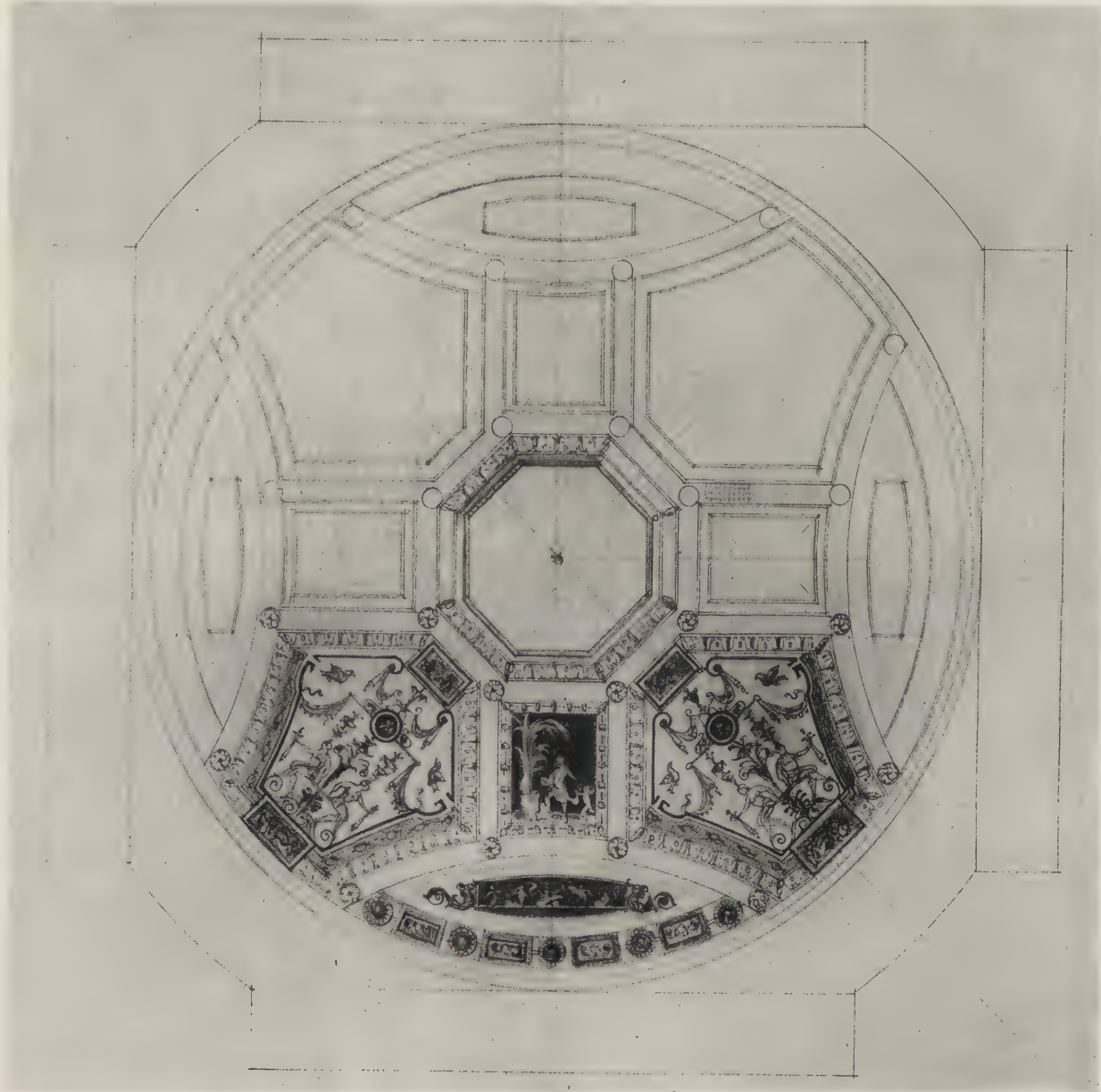


Figure 11

PENCIL AND CRAYON STUDY OF A CIRCULAR DOME CEILING.

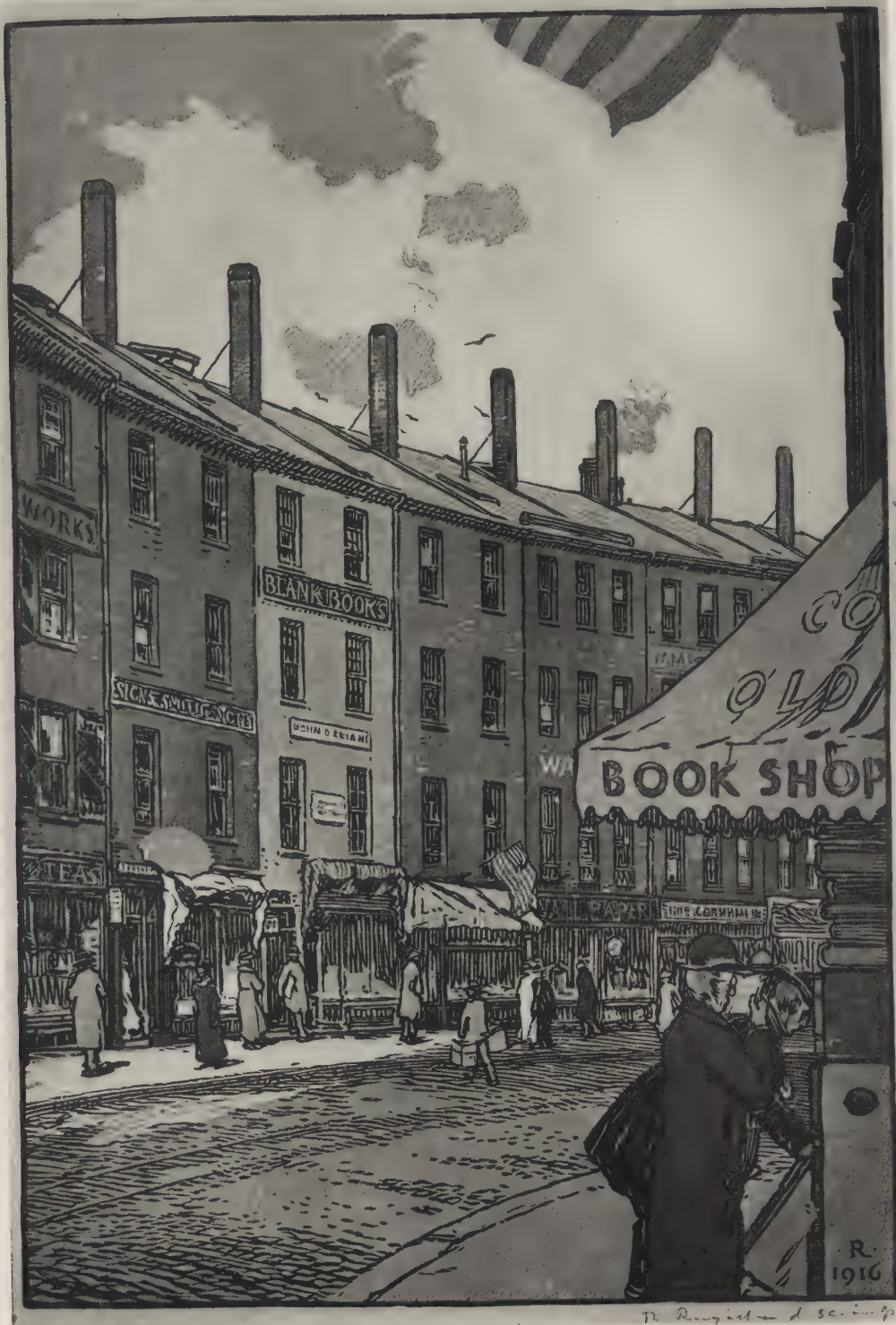
ings will follow, which will almost invariably reflect your own nature.

That sounds simple, and perhaps it is not new to most of the readers of "PENCIL POINTS." Someone has said "A man can't paint a picture bigger than he is." That doctrine is fundamental. A man cannot make a design better than he is! To him who

select strong forms and masses, simpler surfaces, fewer motives, and get carrying power in your principal shadows.

If you are expressing weakness and evasiveness physically and morally, your designs will betray it in conflicting motives and apologetic or imitative subterfuges; on the other hand, if you are a devotee of frankness and honesty, your designs will show it.



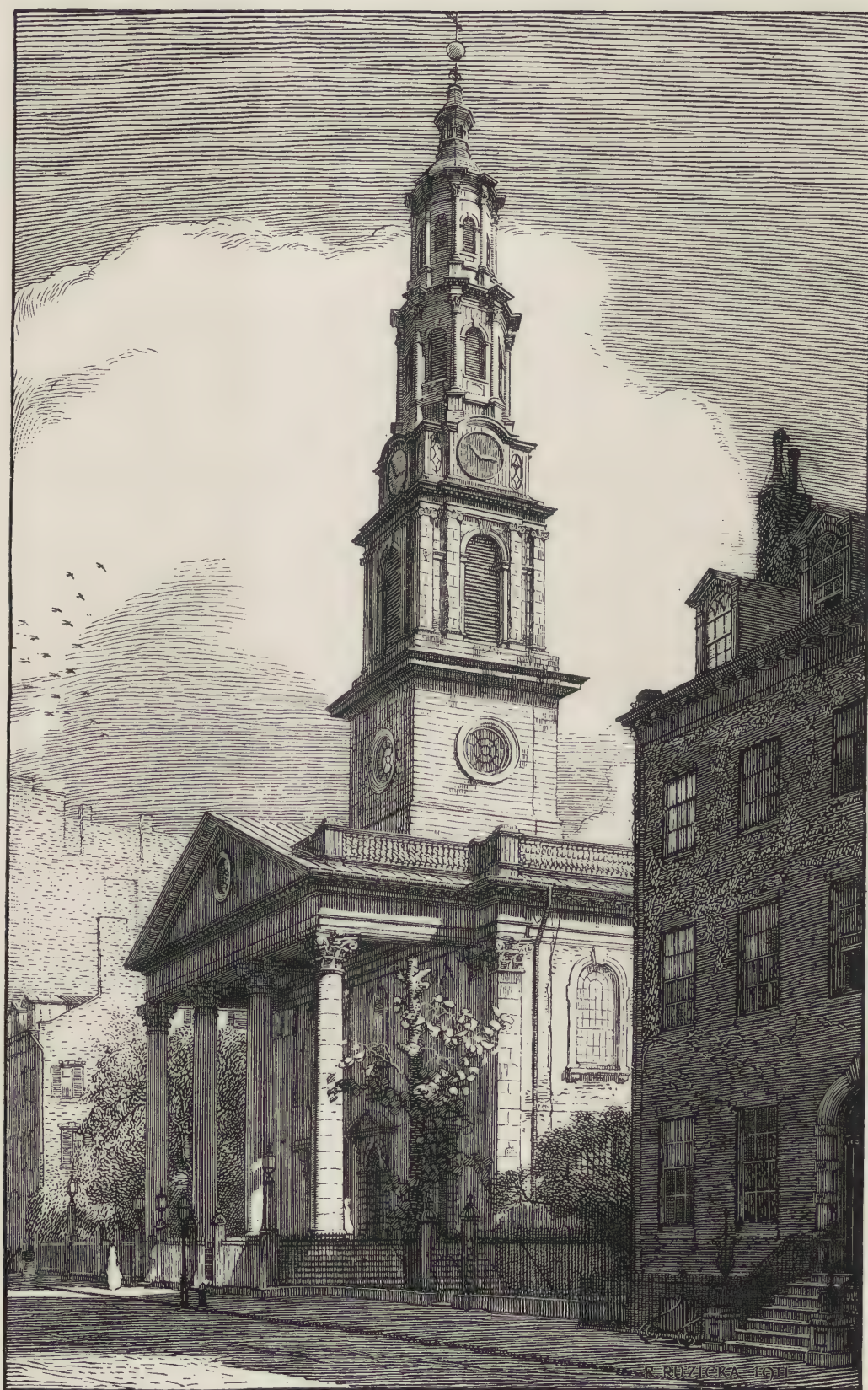


Courtesy of E. Weyhe

WOOD ENGRAVING IN COLOR BY RUDOLPH RUZICKA

"CORNHILL, BOSTON"





*Courtesy of E. Weyhe*

WOOD ENGRAVING BY RUDOLPH RUZICKA  
"ST. JOHNS IN VARICK STREET"



PLATE 1

Volume VII

Number 1



RUDOLPH RUZICKA  
WOOD ENGRAVER



# TYING DOWN THE OWNER

## A "CLIENT'S SPECIFICATION" FORM USED FOR OFFICE RECORD

*By Aymar Embury II*

MOST PEOPLE WHO GO about the building of a private house are completely ignorant of the processes of building; they have probably never before had anything built for them and it is likely to be their last venture; their knowledge of even the manner in which an architect does his business is often elementary, and many, although happily not a majority, never seem to realize that building a house is just as much a commercial transaction as buying a dinner from the grocery shop.

I happen to be one of those architects who has done a great many private houses and I have found that nine-tenths of my troubles with the owners arise from the fact that they know pretty well what they want, but very seldom know how to go about getting it, and are apt to regard their contracts as a rather useless piece of sculduggery cooked up between the architect and the builder to prevent them from attaining their hearts' desires. It is almost useless to tell a client that his drawings and specifications describe exactly what he is going to get, that he is not going to get anything that is not in the drawings and specifications without paying extra for it, and if there is anything in the drawings and specifications which is not as he wants it, it is not going to be changed without extra expense. The same man who will examine his contract for the purchase of material for his factory with the utmost care and see that the list of parts is correct to the minutest detail, will look at the 30 or 40 pages of specifications and say to himself, "I guess it will be all right," and then complain to the architect, fight with the builder and possibly end with a law suit which he almost certainly loses, because he hasn't paid the same attention to his house that he has to his other orders and because he has never properly given to the architect his instructions as to what he wants. Likewise with the woman; no housewife ordering a dinner for eight people will automatically expect the grocer to send horse-radish to serve with the oysters when the grocer doesn't know that oysters are going to be the first course and wouldn't assume that horse-radish was desired anyway. Yet this same woman will, when the house is entirely completed, say, "Oh, I didn't know that my doors were to be painted. I wanted them mahoganized. Now you must see that I get what I want." Which means that she doesn't intend to pay for the change.

Like all controversies this is not entirely one sided and a large part of this trouble is often due to the architect. He has built not one but a good many houses and he has learned that the average client always has in mind unknown factors which he expects to happen automatically, which is not by any means true. He often does not take the trouble to find out just what the owner wants in details which seem to him unimportant, but which may be essential to the

owner, and he also is apt to forget the things the owner speaks of as desirable although he very rarely forgets the things that he wants in the house himself. This condition is further aggravated by the fact that house building is outside the province of the usual owner and he tries to do his business with the architect outside the usual office hours, so that information as to the things desired comes to the architect at the fag end of a note asking him to dinner, or by a telephone call (which maybe gets him out of bed), because the lady has just been to a dance and has noticed the floors run lengthwise of the rooms instead of crosswise. Information given in this manner is not apt to get on the drawings unless the architect has a mind like a filing system that works, and I myself haven't such a mind nor do I propose to cultivate that faculty. It is too much trouble and even when you have the mind trained you cannot absolutely rely on it.

For these reasons, a number of years ago I invented a form that I call the "Client's Specification," which is to be a record on paper of everything that the owners say they want and of every change they record. The form that I use is reprinted in this article so it is perhaps unnecessary to explain that it really amounts to a questionnaire in untechnical language about all the things that are apt to come up on a private house. It may be applied with comparatively slight changes to other sorts of buildings, but was designed with the idea of taking care of residence work and is best fitted for that use. It is by no means perfect, but is a great deal better than any system that I have happened to see in other offices. This form is usually filled out by me at my first interview with the client before the sketches are prepared; that is to say, it is filled out if I can persuade my prospective client to hire me, and on the basis of the information given in this client's specification, the sketches are drawn up and from this, subject to alterations as may come up from time to time, the working drawings are made and the specifications are written. On the first page I get the name and address of my proposed client. A good many people come to this office whom I have never seen before and who expect me to know automatically all about them (as I suppose I should), but this gives me an excellent chance to get my client's name exactly and the address to which I shall send correspondence and more important, my bills. I also put the commission number on this first page. This gives me a chance to indicate delicately to the client that I am an experienced architect, since the commission number runs at the present time around 500. I didn't start putting the commission number on, until I had a respectable experience behind me, though of course this little difficulty could have been avoided had I



started my numbers at 100 or 200 or 500, in accordance with whatever system of enumeration I might have adopted.

On the second page I get information as to lot size, grading, how the house faces, the general style that the owner desires, and what he proposes to spend. I also have a chance to introduce delicately that most troublesome of subjects—how much I am to be paid for the work, and this is agreed on then and there, and as a rule without friction, or else the client's specification stops where it is and I rub out the pencil notes on the first page and save the form for another client.

Most people really want to know what the architect is going to charge and certain of us at least are burning with curiosity to know what we are going to get. Here the question arises naturally and is answered without awkwardness.

I try to get from the client a contour map of the property which answers more completely the questions in this first section; if I succeed, this contour map is attached to the client's specification in the file, and any notes that I make when I see the property are attached also. There is one other important heading, and that is "Restrictions." Very often the small suburban lot or the city house has restrictions on the property which affect the design very materially, which the owner does not think of and of which the architect does not know the existence. These should be inquired about.

The next section asks general information as to the owner's requirements in plan, and I try to get sizes of the rooms in feet and inches as nearly as is possible. Most people say they want 'a large living room,' and a 'dining room to seat 12 people at the most,' and 'a good kitchen,' or phrases like that; and I try, by comparison with rooms in my office, or rooms which we both know, to fix these sizes, or at least their approximate limits, and I adhere fairly closely to them in making the sketches.

The paragraph under 'Materials' is always at the first interview of a rather sketchy nature, but at least I find out whether the client wants a brick house, or a wood house or a stucco house, and whether the roof should be slate or shingles or tile, whether the doors are to be mahoganyed or painted and whether they are to be paneled or plain. The questions asked are those which I find generally arise and if the client has no preference as to materials this is noted, or where certain factors govern others, this too is noted in place of definite information as to what should be used.

Coming to 'Interiors' I try to find out whether the plaster is to be smooth, whether the house is to be papered, or whether a sand finish or English hand troweled finish is desired; whether the floors should be oak or pine or maple or marble; what bath rooms are to be tiled and how high; whether the kitchen is to be tiled; whether the owner likes cornices and whether the general trim is to be painted or stained and I try and estimate about how much decoration the owner desires on the general trim. I also find out in what rooms the owner wants fireplaces and

what his general ideas as to fireplace finish are. Under 'Special Trim' I have simply listed the rooms which may occur in the usual house, and get some indications as to the owner's ideas of interior decoration; I also have included a note on 'special closet work' which in some cases is referred to a separate sheet with a long detailed list comprising hat closets, shirt drawers, shoe racks, and general wardrobe fittings which may be extremely extensive. The dressers take care of the kitchen and pantry work and the paragraph 'painting' indicates whether they want certain rooms enameled or stained or painted with flat paint.

In the paragraph 'Mechanical Equipment,' I find out whatever I can about the owner's ideas as to heating and plumbing, electric work; whether the range is to be gas, coal or oil; and if the owner has any particular ideas about electric equipment.

I also try to find out where the public sewer and water supply systems are—whether there is gas adjoining the property, and things of this kind, because I have several times gotten myself into trouble by specifying that the water and sewer connections should be made to the public main in the center of the street, when in fact they were on the opposite side, and a small extra was involved which annoyed the owner, because he felt that he was having to pay for something he would not have had to pay for had the plans been correct to begin with.

After the 'Clients' Specification' is filled in I make two typewritten copies of it, and send one to the owner asking that it be verified, and saying that in the absence of correction I will assume that my transcript is correct. In this way two birds are killed with one stone. I have a contract with the owner to do a certain carefully described piece of work for a certain fee, as well as detailed information. Generally no change is made at first but inevitably as the drawings progress the owners gather ideas from other people as to what is the latest thing in structure, decoration or mechanical equipment and changes in their requirements are made either by letter or verbally or by telephone. When these are telephoned I make a copy in duplicate of the requirements, pinning one to the client's specification and sending the other to the owner, noting on the original client's specification in pencil (theoretically red, but usually black) that changes have been made in that paragraph. The specifications when finally written are rechecked with the client's specification and the notes of changes, and if we find any variation from the original requirements we either correct it, or where it cannot be corrected without altering what seems to us the proper specification, we call the owner's attention to it and ask for a decision.

Further when the specifications are written we say to the owner, either verbally or in writing, and very often both, that "this describes what you are going to get; so please read it very carefully; we know it is very dull reading and we are not able to make it sparkle; but it is essential for you to have knowledge of what you are going to get and if the specification does not describe accurately what you want



## TYING DOWN THE OWNER

the corrections had best be made before the contracts are let."

We very often have clients come in and say that they do not understand certain of the requirements. These are explained to them and usually they find that we mean exactly what they mean although we use different language, and we have found since the use of the 'Client's Specification' that troubles about things left out or specified with disregard to the owner's wishes are practically eliminated. We find also that in no case has the owner been able to hold us in any way responsible for the things not in accordance with his intention. The trouble involved is very little more than that of the usual haphazard system, and it is certainly worth while, since the information is got together at one time and not piecemeal, and the owner and the architect understand each other fairly completely. Of course, the use of unfamiliar terms some times leads to difficulties as

in the case of one client for whom 'matched' oak floors were specified and who understood that "matched" should be interpreted as "matched in color" and not "tongued and grooved." And of course there is a case famous in my office of a delicate minded lady who desired her "lavatories to have white seats and covers" which led to certain confusion in the mind of the specification writer, since she filled out her 'Clients' Specification' personally, but these cases will become the exception and not the rule as they used to be formerly. We find we have far fewer extras on jobs, which saves us money, since no one was ever paid sufficient commission on an extra to pay for the trouble; we leave behind us satisfied clients, and further than that our clients no longer have in their mind what used to be their apparent feeling, that the building of a house was a mystery shrouded in as deep gloom as the architect and builder could contrive.

# CLIENT'S SPECIFICATION

AYMAR EMBURY II

ARCHITECT

150 EAST 61ST STREET, NEW YORK



COMMISSION NO. ....

NAME .....

ADDRESS .....

LOCATION OF PROPERTY .....

.....

.....

TITLE PAGE FOR "CLIENTS' SPECIFICATION"



## GENERAL

LOT SIZE ..... EXPOSURE .....

RESTRICTIONS ..... GRADE .....

STYLE ..... PROPOSED COST .....

COMMISSION AGREED UPON .....

DRAWINGS .....

SUPERINTENDENCE .....

### ROOMS AND SIZES

FIRST FLOOR .....

.....  
.....  
.....  
.....

SECOND FLOOR .....

.....  
.....  
.....  
.....

THIRD FLOOR .....

.....  
.....

BASEMENT .....

PIAZZAS, TERRACES .....

### CEILING HEIGHTS

BASEMENT ..... SECOND FLOOR .....

FIRST FLOOR ..... THIRD FLOOR .....

## MATERIALS

FOUNDATION ..... EXTERIOR WALLS .....

MASONRY FLOORS .....

ROOF ..... FLASHINGS .....

WINDOWS ..... DOORS .....

COLOR AND FINISHES .....



## INTERIORS

PLASTER .....

CORNICES .....

TILE WORK .....

FIREPLACES .....

FLOORS .....

GENERAL TRIM .....

## SPECIAL TRIM

LIVING ROOM .....

DINING ROOM .....

LIBRARY ..... HALL .....

OWNER'S BED ROOM .....

GUESTS' BED ROOMS .....

OTHER ROOMS .....

.....

.....

.....

SPECIAL CLOSET WORK .....

.....

.....

.....

DRESSERS .....

PAINT .....

STAIN .....



## MECHANICAL EQUIPMENT

WATER SUPPLY ..... ELECTRIC MAINS .....

GAS ..... SEWAGE DISPOSAL .....

HEATING .....

PLUMBING .....

RANGE ..... LAUNDRY STOVE .....

ELECTRIC WIRING ..... WATER HEATING .....

SWITCHES .....

BELLS AND TELEPHONE .....

## SPECIAL EQUIPMENT

HARDWARE .....

SCREENS ..... WEATHER STRIPS .....

PORCH ENCLOSURES .....

GARBAGE RECEPTACLES ..... REFRIGERATOR .....

OTHER EQUIPMENT .....

## GARAGE

.....  
.....  
.....

ACCEPTED, .....

DATE, .....





PAINTING BY EDWIN H. BLASHFIELD  
"ACADEMIA"



PLATE II

VOLUME VII

NUMBER I

*Edwin H. Blashfield's contribution to the Centennial Exhibition of the National Academy of Design, held at the Grand Central Art Galleries in New York, is of general interest. Mr. Blashfield, who is President of the Academy, painted "Academia" especially for the Centennial Exhibition.*





MEZZOTINT BY JOSEPH PENNELL  
"CORTLANDT STREET, EVENING"



PLATE III

VOLUME VII

NUMBER I

*Joseph Pennell was represented at the Centennial Exhibition of the National Academy of Design, held at the Grand Central Art Galleries in New York, by three etchings and a mezzotint, which we reproduce on the other side of this sheet. The print of this mezzotint which was on exhibition is the only one of this subject.*





DECORATIVE GARDEN FIGURE, HARRIET FRISMUTH, SCULPTOR  
"THE VINE"



PLATE IV

VOLUME VII

NUMBER I

*This figure, which was shown at the Centennial Exhibition of the National Academy of Design at the Grand Central Art Galleries in New York, won the Julia A. Shaw Memorial Prize in the Winter Exhibition of the National Academy of Design in 1923. It was subsequently purchased by the Allied Architects Association of Los Angeles, California.*



# PICTURE MAPS

## SOME EXAMPLES PAINTED BY FRED DANA MARSH

THE ART OR BUSINESS of drawing and illuminating charts and maps began in Mediaeval days. The cartographer has remained in business ever since, but it is to the mural painter that we owe the restoration of the art and its application to the decoration of modern houses.

The one spot most often seen by the occupants of a room is probably the space directly over the mantel. Some sort of fitting decoration should occupy this space. A family portrait often has the place of honor, but this is frequently of little interest to any but the family. Far more interesting as decorations are the picture maps which have lately been given the dignity of mural paintings by the artist, Fred Dana Marsh.

Mr. Marsh was commissioned some time ago to paint an overmantel for the Henry house, at Scarborough-on-Hudson, and in seeking a motif for the subject, had the happy inspiration of incorporating the historic events and legendary lore of the sur-

rounding country into a topographical picture map.

This mural map and others painted by Mr. Marsh bear little resemblance to the maps found in the old Atlases with their washes of brilliant colors to indicate the geographical divisions of the hemispheres and countries, which have recently come into vogue for decoration.

Mr. Marsh has used the ancient motif in a novel guise, and has depicted the incidents of history and lore through the medium of a palette of mellow hues. His maps are full of quaint humor, and introduce an unlimited number of interesting details, which are reflections of Mr. Marsh's rich and varied personality. He derives as much pleasure from the research necessary for the compilation of these maps as the maps themselves give to those who study them. His undoubted success in this medium of expression is due chiefly to the fact that, like all true artists, he expresses himself and his joy in his work in each undertaking.



OVERMANTEL— RESIDENCE OF HERBERT PRATT, ESQ., GLEN COVE, LONG ISLAND

PAINTED BY FRED DANA MARSH





OVERMANTEL—RESIDENCE OF WM. G. ROCKEFELLER, GREENWICH, CONNECTICUT

PAINTED BY FRED DANA MARSH





OVERMANTEL IN THE HENRY RESIDENCE, SCARBOROUGH-ON-HUDSON, N. Y.

PAINTED BY FRED DANA MARSH





MURAL BANNER—PAINTED BY FRED DANA MARSH

EARLY HISTORY OF CLEVELAND

*As a rule Mr. Marsh designs his frames and settings for his picture maps. He seems fond of the use of silver as a color for the frames, which, as he uses it, is very effective.*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





WATER COLOR SKETCH BY CASS GILBERT

*Size of Original 11¼" x 17¾"*

*"Carcassonne"*





RENDERING IN OIL BY JAMES PERRY WILSON

*Size of Original 24" x 30"*

*"Summer Moonlight"—Building for the National Academy of Sciences at Washington—  
Bertram G. Goodhue, Architect.*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR



# LINE DRAWING COMPOSITION IN THREE DIMENSIONS

By *Leo Friedlander*

I HAVE OFTEN ADMIRERD the sculpturesque quality in the greater number of the pictures of the Old Masters, particularly of mural decorators; this quality prevades the pictures that appeal to me most. I have in mind not only their thorough execution and extraordinary craftsmanship, but especially their sense of three dimensions in their compositions. Although I am inclined to be more interested in decorative paintings, I shall quote examples of various kinds of paintings that are not all, strictly speaking, mural in character, in order to illustrate my viewpoint.

So, as an example, I shall begin with the "Sybils" of Michelangelo, and his circular composition, "The Holy Family". To me they particularly convey the thought that had they been chiseled in stone, they would have surpassed some of his actual sculptures. It seems to me sufficiently logical to speak primarily of Angelo although his frescoes are often referred to as sculptural paintings. Yet in spite of all this effort of classification, we cannot help speaking of his Sistine Chapel frescoes as decorations of a kind, created by the master hand of the most potential figure in the history of Art. Titian's painting, "The Entombment" in the Louvre, always impressed me as a possible group in sculpture. Likewise, Rubens' "Rape of the Daughters of Leucippus by Castor and Pollux" at the Pinacothek, in Munich, seems distinctly sculpturesque to me. The taste, style and temperament of Rubens are as adverse to those of Titian as night and day, yet Rubens' picture has always impressed me as equally sculpturesque. Among the Italians of the Fifteenth Century,

Piero dei Franceschi's impersonal style and rigidity are astonishing. He revived some of the outstanding sculpturesque qualities and understanding of geometrical shapes in rhythmic relations to one another, reminiscent of the Greeks, a quality that was paramount in the western pediment of the Temple of Zeus at Olympus. With Piero these qualities became even more pronounced by the introduction of color. I maintain that the

present day cubism, in its best form, is a superficial derivation from the Piero source. I have always associated his powerful, yet tender, decorations in the Cathedral at Orvieto with the best of bas-reliefs, and his "Education of Pan" at the Berlin Museum impresses me as an extraordinary piece of sculpture in all its severity.

Why could not Leonardo's "Gioconda" or his "Virgin and Child with Saint Anne" have been created in stone? Who would venture to say that they would not have been contributions of the highest



DRAWING BY LEO FRIEDLANDER, SCULPTOR  
"MADONNA AND CHILD"

aesthetic value to sculpture? Can a sculptor look at Da Vinci's cartoon, "The Holy Family," at the Royal Academy, without being prompted to think of a charming sculpture in high relief?

The two figures in the foreground embracing in "The Visitation," by Ghirlandajo, at the Louvre, remind us of the type of placid beauty that Andrea della Robbia might have converted into sculpture. In fact, upon reflection, his group, "The Visitation," in the Church of San Giovanni at Pistoja, is this very kind of thing.

Of the more spontaneous and realistic school,—"The Infant Baltazar Carlos," by Velasquez, at the Madrid Museum, suggests a charming,



vigorous, prancing esquestrian for bronze.

As we review the field of unlimited accomplishments of Antiquity, we find this sculpturesque quality evident in the best paintings and far more pronounced than in the present day work. When I speak of good draftsmanship that has direct bearing upon line drawing in three dimensions, my admiration is drawn toward Holbein, whom it is necessary to mention here with emphasis. He could suggest depth in the drawing of a profile, hand or any part of the human form with little or no shading, for he tended to modify his modeling in an abstract way. Holbein is important to me here, by way of illustration, as his drawings convince me in every contour that he was conscious ever of a third dimension. His was monumental portraiture, pure and simple.

With conditions as they are today, time is an important factor, whether we concede this or not. The architects of today have developed to a stage where they decide a great deal of their work on paper. The difficulty of designing a building or monument thoroughly on paper has arisen so often that models have been made further to assure the soundness of the design. This is a logical thing to do, yet the majority of buildings are designed with little time wherein to do an adequate model. Either way has its merits. The architect, nevertheless, has unconsciously actually developed to the point of feeling three dimensions on paper. The architect is an artist in his work as are the painter and the sculptor in their respective branches, and since the former is able to handle what has really come to be a very complex problem, mainly on paper, I should say that a sculptor should be at least equal to the task.

Let us now take for example: an architect has made a rendering of a facade, and has allotted space in the drawing for the sculptor to enhance. In this case, we eliminate the idea of making a model and depend entirely upon the ability, on the part of the sculptor, to use his pencil. He is

now afforded the advantage of intimate association with the structural lines and entire scheme of the architecture of which his work is to become an integral part. His ability to sense his compositions in three dimensions becomes evident if he is able to indicate intelligently conceived shapes that will not be deviated from principle in his final work. It is needless here to touch upon the finer sense for scale, which applies to the architect as well as to the sculptor. Perhaps this is a gift of the gods. Nevertheless,

the process cannot help making for better harmony and collaboration. In fact, line drawing has this advantage when drawn intelligently and skillfully: it has great affinity with silhouettes in sculpture, and is in itself clear and concise. Now the important point which I wish to bring out in this article and which has direct bearing upon my appreciation of the aforementioned paintings' sculpturesque qualities is this:—

If the silhouette, shapes and general composition are satisfactory on paper, the sculptor should have a reasonably definite vision of the third dimension of his own drawings. Reverting to the scale model, the scale is usually so small that the detailing becomes an effort, rather than an enjoyment—the latter being a prerequisite in creative work. Therefore, the on paper process is pretty sound, and gives the sculptor on second thought an opportunity to make reasonable sized studies of his drawings to assure himself. In other words

I am suggesting adding to the old procedure a preliminary step toward the realization of the final work.

In the accompanying illustrations are examples of a relief and the preliminary drawings that were made in the architect's rendering. Where the problem is reliefs, the drawings can advantageously be enlarged by the lantern, thereby maintaining the feeling of the drawing to a "T". In the group "The Three Wise Men," I have deliberately executed this work from my preliminary drawing without departure from it.



DRAWING BY LEO FRIEDLANDER, SCULPTOR  
"MADONNA OF THE NICHE"



## LINE DRAWING COMPOSITION IN THREE DIMENSIONS

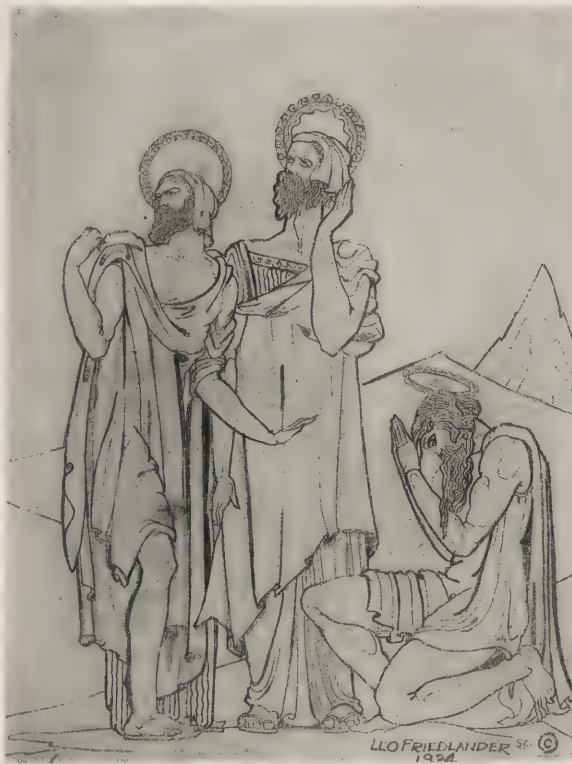
The only addition is a small tree to tie the central figure more solidly to the kneeling one.

There are several additional drawings illustrated so that the reader may acquaint himself better with the quality of line drawing that I have developed.

That drawings have been made preliminary to modelling in collaboration I recognize, but in most cases these were vague though interesting sketches. Therefore, encouragement of a more practical and advantageous application of the pencil can meet only with approval.

If we could compile the best drawings by master sculptors that were executed in three dimensions, eventually we should find that, fundamentally, the finished works were unchanged in composition.

One of the first primitive instincts of man was to draw, and before the process of civilization had devised the science of perspective, man relied entirely upon his feeling to illustrate depth in his pictures. Man has grown older and wiser,



STUDY BY LEO FRIEDLANDER

PRELIMINARY DRAWING FOR "THE THREE WISE MEN"

yet we can never eliminate feeling from our creative sense in art. Should the time ever come when industry and commercialism shall so influence art as to place it in line for standardization, Art will have vanished from the earth.

This is not written as an attempt to suggest methods whereby the best results are obtainable. In Art no such definite thing exists. It is rather to emphasize the importance of drawing as the basic principle, in its simplest form, (the outline) of the Fine Arts. Sculpture is furthermore too vast a thing in itself to attempt to harness here or elsewhere. Let those of us who have sworn allegiance to the Muse encourage more discussion that will lead to the highest concepts in our art. In this sense

these lines are offered for consideration. I hope they contain useful material for thought and that they may in some degree be a contribution to all draftsmen and of assistance and help to them.



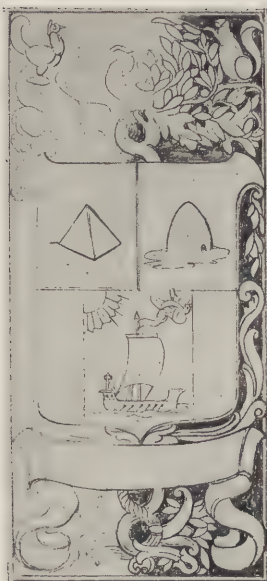
"THE THREE WISE MEN"—LEO FRIEDLANDER, SCULPTOR



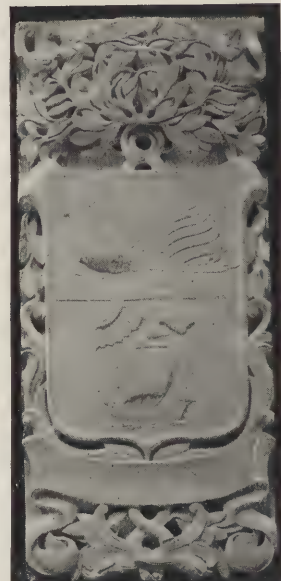
## ORNAMENTAL PANELS IN CEILING OF ENTRANCE HALL

NATIONAL CHAMBER OF COMMERCE  
WASHINGTON, D. C.

*Cass Gilbert, Architect*  
*Leo Friedlander, Sculptor*



The drawing at the left, reproduced at the exact size of the original, was made by the sculptor directly on the architect's rendering of the ceiling design. The drawing was enlarged by the lantern and the finally executed panel, shown in the illustration at the right, was made without losing the feeling of the drawing or departing from it in any way. This is one of five panels that were executed in relief and designed to carry well at a height of about twenty feet from the floor. Each panel is approximately 2'6" x 6'2".



## FIGURE PANEL IN CEILING OF COUNCIL CHAMBER

The figure drawing shown here is reproduced at the original size of the sculptor's drawing which was incorporated in the architect's rendering of the large beamed ceiling of the Council Chamber of the National Chamber of Commerce. It will be noted that the finally ex-



ecuted panel shown below has been done without deviation from the drawing. The ceiling is thirty-three feet in height and was executed in "Three Plane Relief". The actual modelling is in flatter relief than it appears, the contours being raised to emphasize the design.



"AVIATION"—LIFE SIZE PANEL IN CEILING OF COUNCIL CHAMBER

*Leo Friedlander, Sculptor*



# PENCIL POINTS

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### JANUARY, 1926

#### THE NEW YORK ARCHITECTURAL CLUB, INC.

HAIL! HAIL! THE NEW YEAR IS HERE!

Ah me, the poetry of it! Think of the inspiration. Another chance to make a new start. An opportunity extended to each and every one of us weak mortals, by the generous gesture of the benign and benevolent Saints (Amen) to see the error of our ways and—do worse in the future, thereby proving that we did not do so badly in the first place. To let our vivid imaginations run riot in forming lofty and ideal resolutions, which get weak in the knees come the 5th of the month, become wobbly about the 10th, and come down with a loud crash by the 15th of January on the dot. But then, this is a free country (except for that famous No. 18) and we feel that we can break all the resolutions we want to, if we want to. There are darned few other things that we can break and get away with it.

But, to get back to the point. The majority of our fellow citizens, and some of our other neighbors agree, that this is the most inspirational period of the year. We know, because we asked at least five of them, and they admitted it even though we didn't threaten to sic the traveling photographer on them. Therefore, to be in conformity and harmony with those dear fellow citizens, we have properly and generously imbibed of—inspiration. Inspiration to tell you about our club.

The Board of Directors of the club are considering a proposal to erect a building of 12 to 16 stories, a suitable number of floors of which are to be used for club purposes, and the balance of the building to be revenue producing. The club will call a general meeting in about the middle of this month, all members to be present, and it is possible that a definite program of action in this matter will be decided upon.

At the last meeting of the Board of Directors a resolution was passed to establish an atelier immediately, in a centrally located place, and a committee of three was appointed to put the resolution in motion. The committee consists of Messrs:

E. L. Capel, Chairman,  
care Alfred C. Bossom, 680 Fifth Ave.  
H. Sasch,  
care Donn Barber, 101 Park Ave.  
E. D. Thomas,  
care T. W. Lamb, 644 Eighth Ave.

The preliminary program calls for a regular Beaux Arts Institute atelier consisting of up to 50 members, the dues to be \$5 per month, a life model class in which the charges

per lesson will be proportioned to the number of students participating, and any other kind of classes for which a sufficient amount of interest and demand is shown. *These classes are now forming, and anyone wishing to join should get in touch with a member of the committee at once*, as the number of students will be limited. Through the good offices and influence of the club, it is expected to obtain the best possible critics in the profession for these classes, some of whom are already members of the club.

The club held the regular monthly dinner-dance at Jensen's Hof-Brau, at Broadway and 53rd Street, on Tuesday evening, December 15th, and we state without any fear of successful contradiction that a grand and glorious time was had by all who were present. And little wonder. The food was excellent, the music good, the price right, and plenty of cheer around to make the party lively and gay. These are informal affairs, and usually arranged to take place around 6:30 or 7 o'clock to give those that wish to depart early a chance to do so, while the rest can stay on into the wee small hours if they care to. We noticed that the majority of the ensemble were wee hourites.

#### THE ARCHITECTURAL BOWLING LEAGUE DIVISION

The Bowling League has just terminated a series of 19 games, which is the first round, or half of the 5 man team tournament.

The standing of the teams at this time is as follows:

No.	Office	Won	Lost
1.	Cass Gilbert .....	17	2
2.	Warren & Wetmore .....	16	3
3.	Guilbert & Betelle .....	15	4
4.	{ Donn Barber .....	14	5
	{ Alfred C. Bossom .....	14	5
	{ McKim, Mead & White .....	14	5
7.	McKenzie, Voorhees & Gmelin .....	13	6
8.	James Gamble Rogers .....	12	7
10.	{ J. E. Carpenter .....	11	8
	{ Starrett & Van Vleck .....	11	8
11.	A. J. Thomas .....	10	9
12.	T. W. Lamb .....	9	10
13.	{ Holmes & Winslow .....	8	11
	{ Peabody, Wilson & Brown .....	8	11
15.	{ Schwartz & Gross .....	5	14
	{ B. W. Morris .....	5	14
17.	Allen & de Young .....	4	15
18.	Shape, Bready & Peterkin .....	2	17
19.	{ Schultz & Weaver .....	0	19 forfeit
	{ W. L. Stoddart .....	0	19 forfeit

High team score,

Warren & Wetmore 843

High individual score,

R. D. Read of Cass Gilbert 221

High individual average,

W. Miltenberger of Donn Barber 168

Our inherent modesty forbids the claim that we are the king pins when it comes to bowling, but we have a hunch that such as we are, we could cross pins with any bowling organization in the architectural profession, and give them a run for their strikes and spares. Always providing of course that they go through with the test to the end. This defy takes in these United States, including Yonkers and all territorial waters to the twelve mile limit.

November 19th was "Ladies Night" at the alleys, and a keen competition took place among the ladies for the usual three prizes. Miss Sally Lynch was the proud victor, and walked off with the first prize on the strength of her score of 128. Our hats are off to Sally for the determined way she went after the goal. Missing by a slight margin at the first Ladies Night, she would not accept disappointment twice. A chip of the old block for a fact, we would say. Mrs. Henry Poll was in on the winnings as usual, missing first place by a very narrow margin, and Miss James repeated her previous performance by acting as rear guard.

We wish to repeat again our open invitation to all who may be interested, to drop in and see us on bowling nights. We bowl every Thursday evening from 8 to 12 p. m. The address is Thum's Recreation Academy, 1241 Broadway, New York City, and there is no charge of any kind whatever. We use 11 alleys on the 4th floor, with upwards of 50 bowlers participating each night, and some of your friends may be among them. Come up and cheer them on.

Henry Sasch,  
Secretary,  
care Donn Barber  
101 Park Avenue, New York City.





PENCIL RENDERING COLORED WITH LIGHT WASHES BY MORRIS HOBBS, TOLEDO, OHIO

## ST. LOUIS ARCHITECTURAL CLUB

THE EXHIBITION OF THE WORK done by the Summer Sketch Class of the St. Louis Architectural Club was held recently at the Clubhouse in connection with a regular meeting of the Club.

The instructor of the Class this past Summer was Erwin Schmidt, and the character of the sketches submitted was excellent, showing a steady improvement over the work done during the Summer of 1924.

The Preston J. Bradshaw Prize—One Hundred Dollars in cash—was awarded to Victor J. Kunz for the best group of sketches; and the second prize, the Carl Walter Cup, was awarded to Lloyd Lueschaw. Frank George received Honorable Mention for his work; and others who displayed commendable sketches were Edwin Armstrong, Arthur T. Grindon and Charles Hager.

Victor Kunz and Frank George are Juniors in the School of Architecture at Washington University, but received their earlier training in the Atelier of the Club, which is affiliated with the University.

Within the past few weeks death has claimed two of our members who had for many years been loyal to this organization. Ernest Helfensteller, of the firm Helfensteller, Hirsch & Watson, died suddenly of heart disease at his office; and on November 30th, Albert B. Groves died at his home of heart disease after a brief illness. Mr. Groves had practiced architecture in St. Louis since 1891. His son, Theron A. Groves, has held various offices in the Club during recent years, and with the passing of the elder Mr. Groves our roster shows only one other instance of father and son among our membership, namely that of William B. Ittner and William B. Ittner, Jr.

## PRATT INSTITUTE ARCHITECTS CLUB

FROM THE CLASS of 1903 comes our latest recruit to join our Tuesday Luncheon gathering at the Fraternity Clubs Building, 22 East 38th Street, New York, at 12:30 p. m. We have a long table, all our own, surrounded by P. I. Architects. But—there is always room for you when you decide to join us. You must lunch, so why not with us? Just come once. This is not a threat but merely a hearty invitation. Further details may be had from Philip G. Knobloch, care of May and Hilliard, 15 East Fortieth Street, New York.

## EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

THE ANNUAL EXHIBITION of the Architectural League of New York will be held at 215 West 57th Street, New York, from January 31st through February 28th.

Entry slips were received up to December 30th and exhibits will be received at the Fine Arts Building on January 15th and 16th.

## LOS ANGELES ARCHITECTURAL CLUB ATELIER

THE LOS ANGELES ARCHITECTURAL CLUB Atelier wishes to announce that it has at last come out of hibernation. Realizing that we have not been heard from for some time, we are sending this report on a banquet and general get-together.

All the old Beaux Arts problems and student work of every sort was brought in and tacked to walls.

The banquet was a great success, creating fine spirit among the forty-six fellows present. Mr. Jess Stanton, just back from Europe, gave an illustrated travelogue on his trip. Mr. Lee Rombotis, who won the Paris Prize in 1923, told of his experiences in the different ateliers both here and in Paris. He gave the fellows many valuable pointers on the methods of studying Beaux Arts Problems. Mr. Julian Garnsey, president of the Los Angeles Architectural Club, also gave quite a talk on his experiences in Paris and he told of some of the amusing incidents at the "Quatres Arts" ball. Mr. Lee Fuller acted as toastmaster and very capably handled the affair from beginning to end. Mr. Fuller also gave a very educational and at the same time entertaining talk on Beaux Arts work. Mr. Fitch Haskell, one of our Patrons, acknowledged his pleasure in being with us.

## PROFESSOR VALENTI TO CONDUCT SUMMER TOUR THROUGH ITALY

UNDER THE AUSPICES of the Royal Italian Government, Professor Paul Valenti will conduct a "Summer School and Tour of Instruction for American Students" who are planning a trip to Italy. The support and cooperation of the Italian authorities have been secured and a program conceived on a purely educational basis arranged. The itinerary has been chosen with special reference to the combination of history and art study with the enjoyment of the natural beauty of the country. Through the generosity of the Italian Government many privileges, financially as well as educationally, have been accorded. The tour will leave New York on June 26th and is due back in New York on September 16th. For descriptive booklet giving complete information address Prof. Paul Valenti, Washington University, St. Louis, Mo.

## ANOTHER ATELIER IN NEW YORK

A NEW ATELIER HAS RECENTLY BEEN opened through the assistance of Messrs. Blum, LaVelle and Marugg, Architects, 505 Fifth Avenue, New York City, who will assist the members in their studies. Full particulars for membership may be secured from Arthur Deimel, care of Paul B. LaVelle, 505 Fifth Avenue, New York City.



## PENCIL POINTS

### THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary of the American Academy in Rome, from Gorham P. Stevens, Director, we quote the following:

"The academic year has started with a good enrollment.

	Fellows	Visitors	Visiting Students	Totals
F. A.	13	1	10	24
C. S.	3	6	33	42
Totals	16	7	43	66

"And we know of others who have not yet arrived.

"Among some of the Visitors of note may be cited Mr. A. Phimister Proctor, the well known sculptor; he has been given one of the sculptors' studies in the forecourt.

"The work in both Schools has started most auspiciously, with an unusually varied set of lectures and excursions; in addition, the newly-arrived Fellows are hard at work with an Italian teacher supplied by the Academy.

"The first copy of Volume V of the Papers & Monographs has just arrived from the printer. This is Mrs. L. B. Holland's book on *"The Faliscans in Prehistoric Times."* The work was done at the Academy before her marriage—she was Miss Louise E. W. Adams, a Fellow of the Academy.

"Twenty copies of the late Prof. C. Densmore Curtis' book on the 'Jewelry of Sardis,' a publication of the American Society for the Excavation of Sardis, have also been sent up by the printer. Professor Tenney Frank found all but two pages in typewritten form at the time of Professor Curtis' death. Professor Frank prepared this book for the press, as well as that of Mrs. Holland; and he did the same thing for Volume V of the Memoirs, which will probably be delivered this month.

"We were much pleased to welcome Mr. Edgar I. Williams, a former Fellow in architecture and at present a Trustee of the Academy.

"Another visitor of note was Mr. William Barclay Parsons, chief engineer of the Rapid Transit Commission, New York, member of the Board of Consulting Engineers, Panama Canal, and President of the Board of Trustees of Columbia University. He is preparing a book on the bridges, domes and roads of the Renaissance, to appear in five years."

From a letter received by Mr. La Farge from Frank P. Fairbanks, Professor in Charge of School of Fine Arts, we quote:

"The Academic year has begun with an enrollment of twenty-four in the School of Fine Arts. Ten are visiting students.

"Alfred Floegel, last year's senior painter, left the Academy early in October. He is visiting Germany and will sail early in November for New York.

"Randall Thompson, composer, after spending part of his summer in Venice, has returned to Boston.

"Lawrence Stevens is finishing his final requirements in sculpture and will leave the Academy about the middle of November for a visit in England before sailing for home.

"All the regular Fellows are in residence. The new appointees have all shown a desire to begin immediately on their required work.

"Fraser, the new architect and Mueller, the new painter, have both visited the site of Hadrian's Villa with the Director. The former may take a part of the Villa for his restoration. Mueller, who arrived only a short time ago, after visiting England, France and Germany, has begun a sketch for a figure-composition. Hancock is occupying temporary studio quarters until Stevens leaves. Both of the new composers, Helfer and Sanders, are producing compositions and are having criticism from Maestro Respighi. They have attained a reputation for unusual industry. All of the new men are most promising and we look forward to a successful year.

"The Fellows have requested that they be permitted to return to the old system of having a program supplied for them for the collaborative competition, instead of electing their schemes as they did last year. Mr. W. S. Richardson, the Annual Professor in the School of Fine Arts, is helping prepare the program. This method of establishing the problem for collaboration will enable the teams to make drawings and paintings to a uniform scale, for better presentation at exhibitions.

"Concluding a long review of the first performance of Sowersby's Symphonic Poem, 'From the Northland,' by the Cincinnati orchestra, William S. Goldenberg, critic of the 'Cincinnati Enquirer,' said 'Aside from the duty we feel in paying just tribute to the achievement of an American writer, we take a definite pride in predicting that Leo Sowerby, young, a modern without eccentric tendencies, and a well-schooled musician with ideas to express and the ability to express them, will exert a powerful influence upon the musical life of our country.'

"The new Coolidge Hall of the Library of Congress was inaugurated at Washington on October 29th. American music was represented by Howard Hanson's string quartet. Mr. Hanson cables 'Quartet created sensation'."



PENCIL RENDERING BY CHESTER B. PRICE



PENCIL POINTS



Philip Kappel

PENCIL DRAWING BY PHILIP KAPPEL.



PENCIL POINTS



*Philip Kappel*

PENCIL DRAWING BY PHILIP KAPPEL.



## PENCIL POINTS

### THE 1926 PARIS PRIZE COMPETITION

THE FIRST PRELIMINARY COMPETITION for the annual Paris Prize of the Society of Beaux-Arts Architects will be held on February 27, 1926. The Paris Prize entitles the winner to enter the advanced work of the *Ecole des Beaux-Arts* in Paris, and he also receives \$3,000 for his expenses for two and a half years residence and study abroad. Competitors must be American citizens and under twenty-seven years of age on July 1, 1926.

Application for circular should be made to H. O. Milliken, Chairman of the Annual Paris Prize Committee, 126 East 75th Street, New York.

### A SUGGESTION.

TO THE EDITOR OF PENCIL POINTS:

For the information of architectural draftsmen and PENCIL POINTERS, who may be interested in the proposed \$150,000,000 Public Building Bill which it is expected will be passed by the Congress just convened, a timely suggestion may be in order.

The last public building bill to pass the House and Senate was in 1913. The present one as proposed is the largest one ever authorized. In order to take care of the work involved in this appropriation, the present force in the office of The Supervising Architect, Treasury Department, will necessarily be increased as this Department will have to do with preparing drawings and specifications as provided for by the appropriation.

It is suggested therefore, that architectural draftsmen who may consider accepting an appointment in the Treasury Department and are not informed regarding the high cost of living in Washington, D. C., especially rents, are advised to make inquiries as to whether the salary offered will meet demands.

This suggestion is offered at the suggestion of some who recently accepted appointments in this Department at \$1,680.00 per annum and was obliged to resign.



BOSTON, ENGLAND

(The author of this sketch is unknown to us)

### THE CLEVELAND SCHOOL OF ARCHITECTURE

THE STUDENTS OF THE CLEVELAND SCHOOL of Architecture held an informal dance and card party for their friends on Saturday, December 12th, in the drafting room of the School at Juniper Road and Magnolia Drive. Members of the faculty also were guests.

The decorations were planned and executed by the students. The severe and business-like drafting room was transformed into a very acceptable ball room by the use of streamers, lights, and crepe-paper curtains. Those who attended considered the party a great success and look forward to another soon.

The School registered twenty-eight regular students this autumn as compared with nineteen last year, and this growth was accompanied by higher standards of admission. In the first elementary design competition of the season, held under the auspices of the Beaux-Arts Institute of Design in New York, all of the designs submitted by the Cleveland School of Architecture students received honorable mentions. The contestants were Anthony S. Ciresi, a graduate of East Technical High School, Myron T. Hill of Toledo, Frederick W. Linderme, a graduate of Cleveland Heights High, Kenneth S. Miles, a graduate of Shaw High, and M. K. Valentine of Akron. In the Class A project—"A Synagogue," S. K. Kwan was awarded "First Mention."

### THE JAMES HARRISON STEEDMAN MEMORIAL FELLOWSHIP IN ARCHITECTURE

THE FIRST COMPETITION for the James Harrison Steedman Memorial Fellowship in Architecture has been announced. The Fellowship is open on equal terms to all graduates in architecture of recognized architectural schools of the United States. Such candidates shall be American citizens of good moral character and shall have had at least one year of practical work in the office of an architect practicing in St. Louis, Mo., and shall be between twenty-one and thirty-one years of age at the time of appointment to this Fellowship. Application blanks and complete information may be obtained upon written request to the School of Architecture of Washington University, St. Louis, Mo. Application blanks properly filled out must be returned to Washington University not later than January 31st, 1926.



SKETCH BY G. A. RACKELL



## PERSONALS

RAYBURN S. WEBB, ARCHITECT, has removed his office to the Odd Fellows Building, Albany, Georgia.

J. BERNARD WOLSTEIN has discontinued his own practice and is now employed as chief draftsman in the office of R. G. Hanford, 681 East Broad St., Columbus, Ohio.

FELIX P. MCKENNA, JR., AND THOMAS H. IRVING have formed a partnership for the practice of architecture with offices at 15 Park Row, New York.

E. NELSON EDWARDS AND EDWARD F. HOFFMAN, JR., have formed a partnership for the practice of architecture with offices at 315 South 15th St., Philadelphia, Pa.

JESSE L. BOWLING, ARCHITECT, has removed his offices to 1198 Arcade Bldg., St. Louis, Mo.

CHARLES S. SCHNEIDER, ARCHITECT, has removed his offices to 1836 Euclid Avenue, Room 806, Cleveland, Ohio.

ALBERT H. LARSEN, ARCHITECT, has removed his offices to 447 Sulter St., San Francisco, Calif.

HENRY WILKINSON, MAXWELL HYDE, ARCHITECTS, have removed their offices to 19 West 44th St., New York.

A. LESLIE PERRY, ARCHITECT, who was awarded the Royal Canadian Academy travelling scholarship in Architecture, recently exhibited an interesting collection of his drawings in the galleries of the Art Association of Montreal. Mr. Perry has opened an office at 341 Cote St., St. Antoine Road, Westmount, Montreal.

LESTER MERRITT DAVIS has removed his address to 905 Wood St., Scranton, Pa.

HARRY KENNETH VAUGHN, ARCHITECT, has removed his offices to 2512 West Seventh Street, Los Angeles, Calif.

LESTER MERRITT DAVIS, ARCHITECT, has removed his offices to 905 Wood St., Scranton, Pa.

HENRY C. PELTON, ARCHITECT, has removed his offices to 415 Lexington Ave., New York.

BACON AND LURKEY, ARCHITECTS, have removed their offices to 991-997 Main St., Buffalo, N. Y.



RENDERING BY B. C. GREENGARD

### THE BOOK OF THE BOSTON ARCHITECTURAL CLUB FOR 1925

THE TWO OR THREE thousand of our subscribers who have been fortunate enough to secure copies of the 1923 and 1924 Editions of "The Book" of the Boston Architectural Club will welcome the announcement that the 1925 edition will be out about the middle of January. Get your reservation in at once and don't miss this year's great "BOOK." The subject will be of paramount importance, covering a field of unusual interest and being free of all duplication. It is fully protected by copyright and in it the Club will surpass its attempts of the past two years to give the profession what it needs at a reasonable cost.

### ATELIER CORBETT-SMITH

AT A RECENT MEETING held by the members of Atelier Corbett-Koyl a change in name was decided upon with the approval of Mr. Corbett.

Mr. J. K. Smith who for the past year has taken the place of Mr. Koyl and has devoted a great deal of his time to the atelier was unanimously elected as sous-patron. Mr. Smith is a Fellow of The American Academy of Rome and at the present is with the firm of McKim, Mead & White.

Hereafter the Atelier will be known as Atelier Corbett-Smith.

### COMPETITION ANNOUNCED

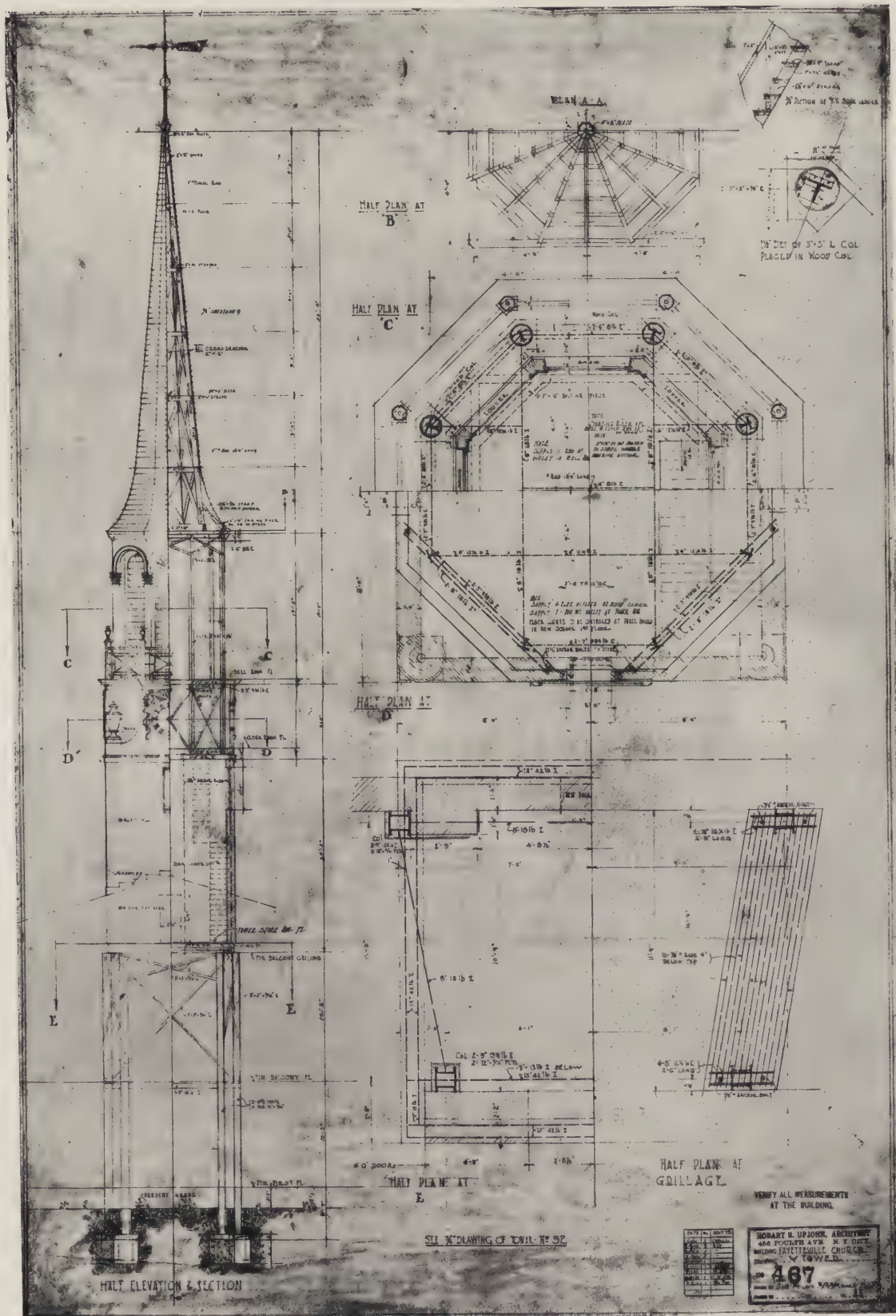
A COMPETITION OPEN to architects throughout the country for plans for a bungalow and apartment house to be built at Niles Center, Illinois, has been announced. The program calls for plans for a two apartment building and a modern bungalow. \$1,200 in prizes are offered and to the winner of each plan also goes the job of supervising the construction of the prize winning buildings. The first prize for each structure is \$300; second and third prizes are \$200 and \$100 respectively on each building. The competition closes March 20, 1926. Complete information may be obtained from the Professional Adviser, E. C. Lowe, 636 Church St., Evanston, Ill.



SKETCH BY ISIDOR RICHMOND



# DETAILS OF CONSTRUCTION

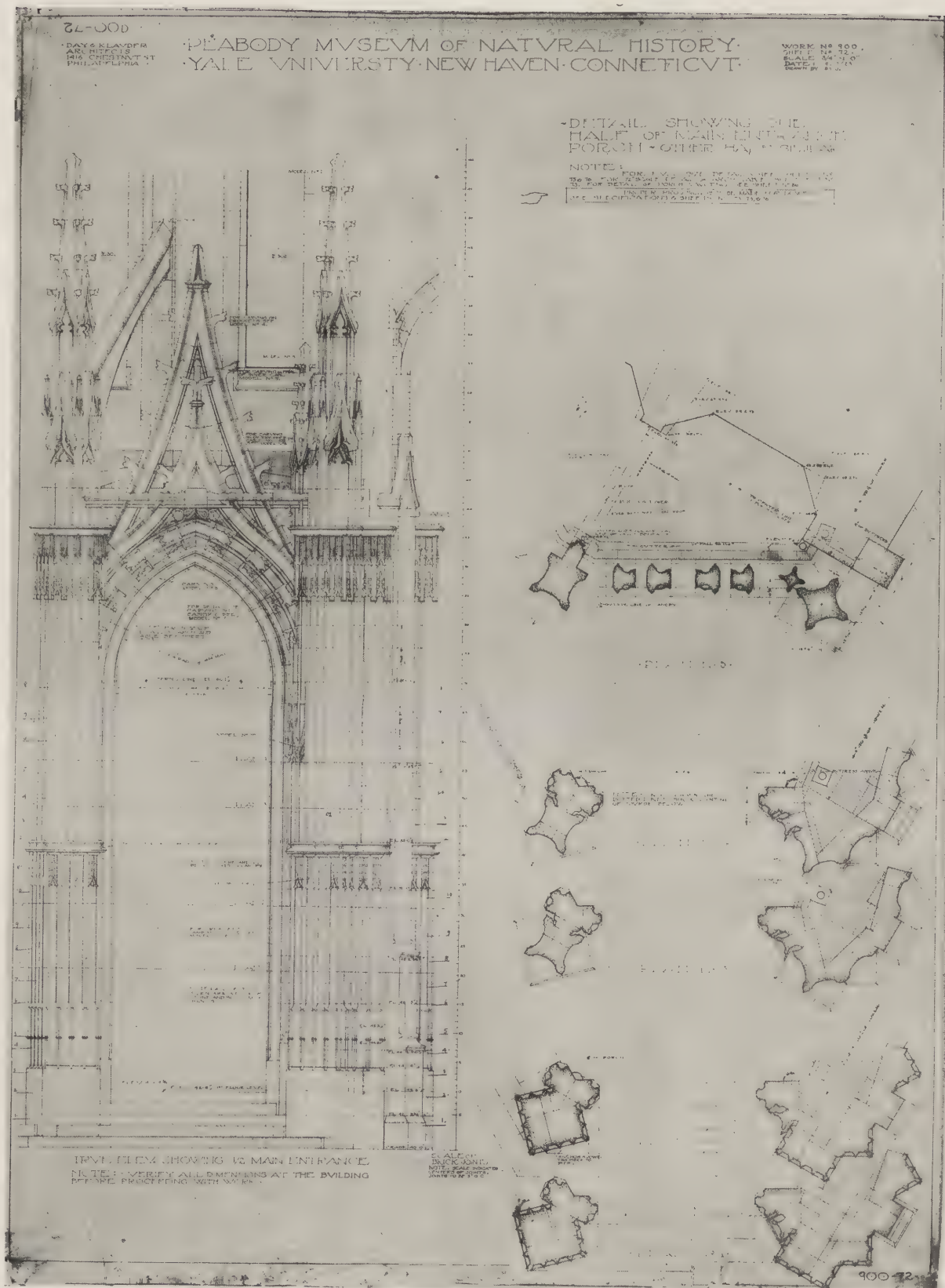


PRESBYTERIAN CHURCH, FAYETTEVILLE, N. C.

Hobart B. Upjohn, Architect



## DETAILS OF CONSTRUCTION



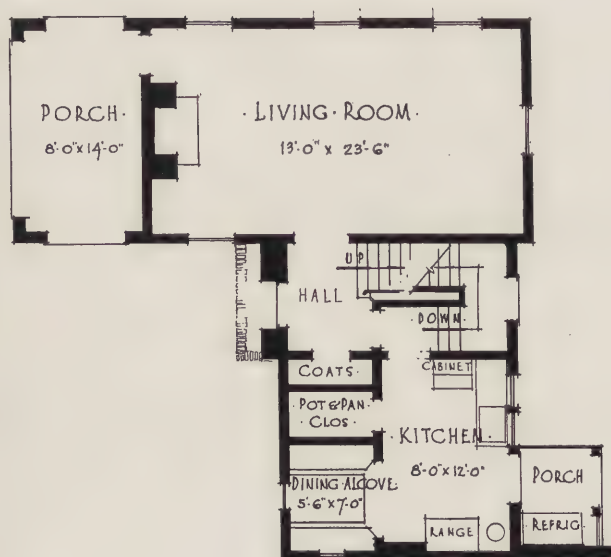
PEABODY MUSEUM OF NATURAL HISTORY, YALE UNIVERSITY

*Day & Klauder, Architects*

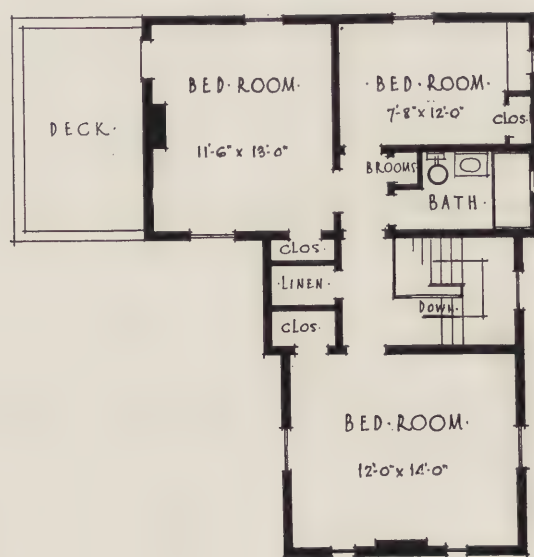




*Rendering by Louis C. Rosenberg*



First Floor Plan



Second Floor Plan

DESIGN FOR A SUBURBAN HOUSE

LEWIS E. WELSH, *Architect*



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

THE PRIZE WINNERS for the period ending December 15th are, Class 1, W. F. Koppes, Class 2, nobody, Class 3, Royal Barry Wills, Class 4, Oliver Whitwell Wilson.

How can we award a prize in class 2, (poetry) when nobody submits any poetry? It can't be done.

Our good friend Mary O'Neill of Amherst, Ohio, has just been married to Mr. D. Keith Wilson. Best of Luck to the Wilsons say we!

the Editor of this department that he cannot have any space, to say much of anything. All right for him. One of these days he will come around and ask us to write a piece and then we will have him where we want him. In the meanwhile we will nurse our grouch and bide our time, and we certainly hope that every PENCIL POINTER will have a very wonderful 1926 and we hope that some of you will send us in some poetry so we can get rid of that ten dollars next month!

PENCIL POINTS is so crowded this month, what with one thing and another, etc., that the Editor of the paper tells

What do you think of the Color Plates in this issue? There will be two more next month and so on throughout the year.



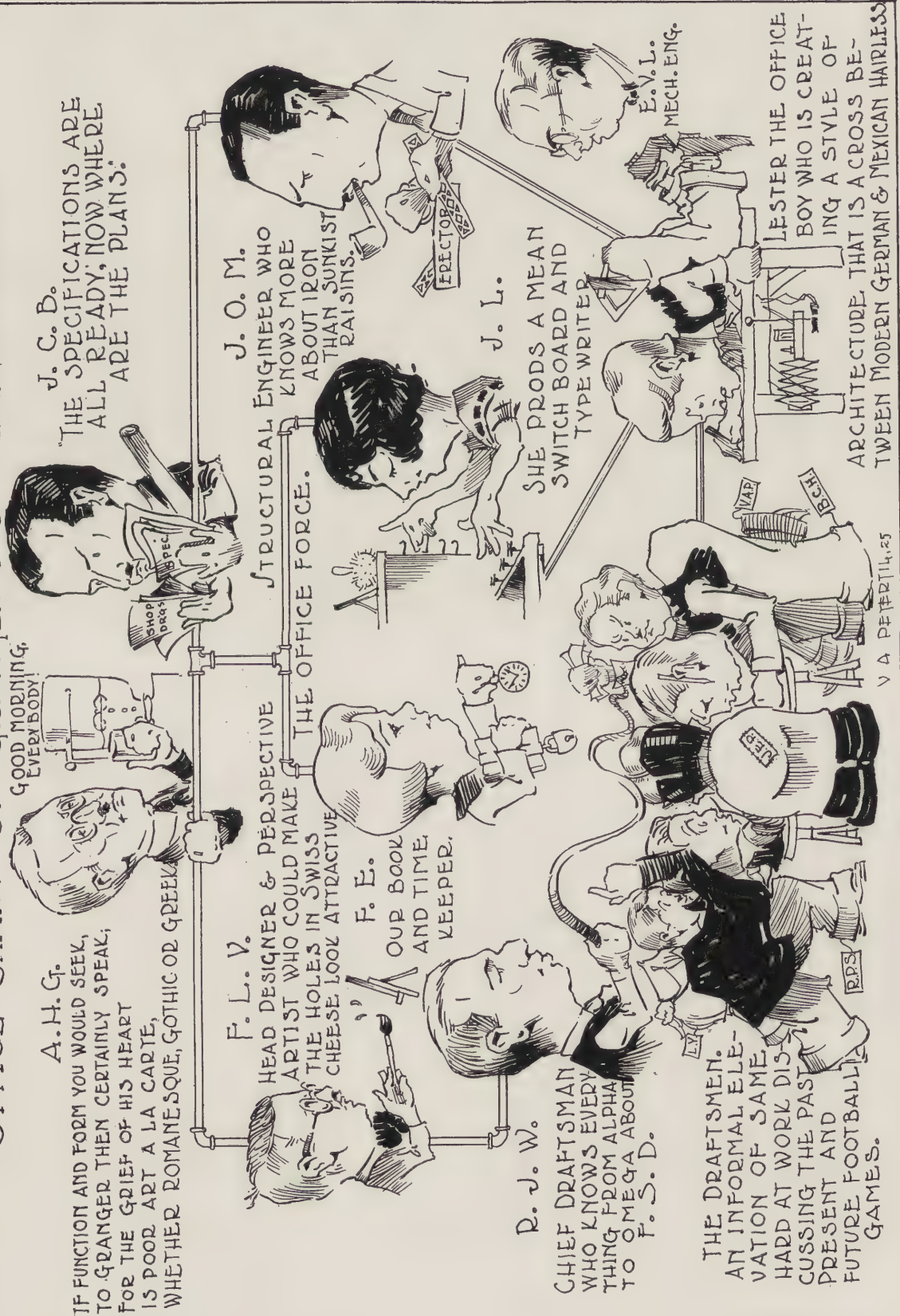
SKETCH BY WAYNE F. KOPPES, CLEVELAND, OHIO  
(PRIZE—Class One—December Competition)



SKETCH BY THEODORE DE POSTELS  
Fifth Avenue, New York



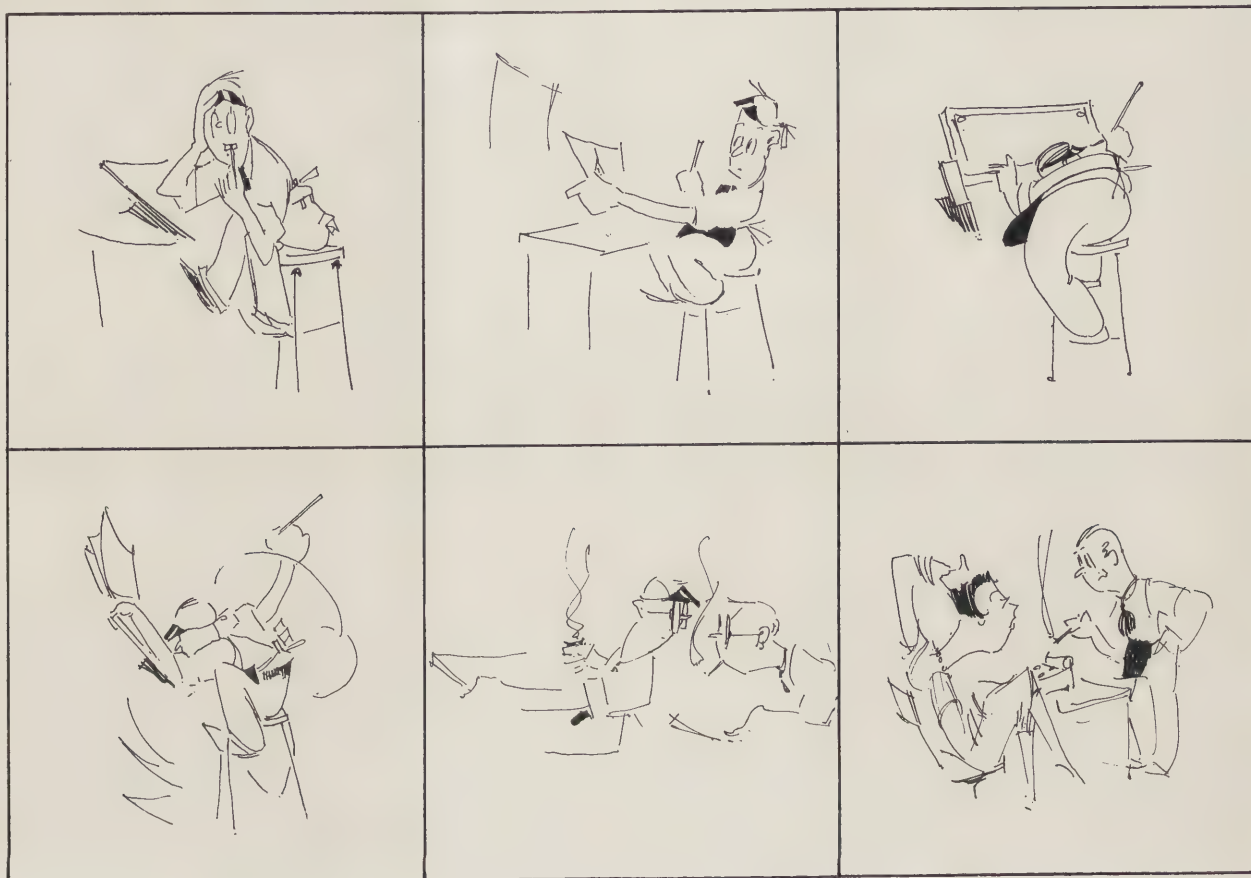
# OFFICE CHART OF GRANGER & BOLLENBACHER: (NOT INKED)



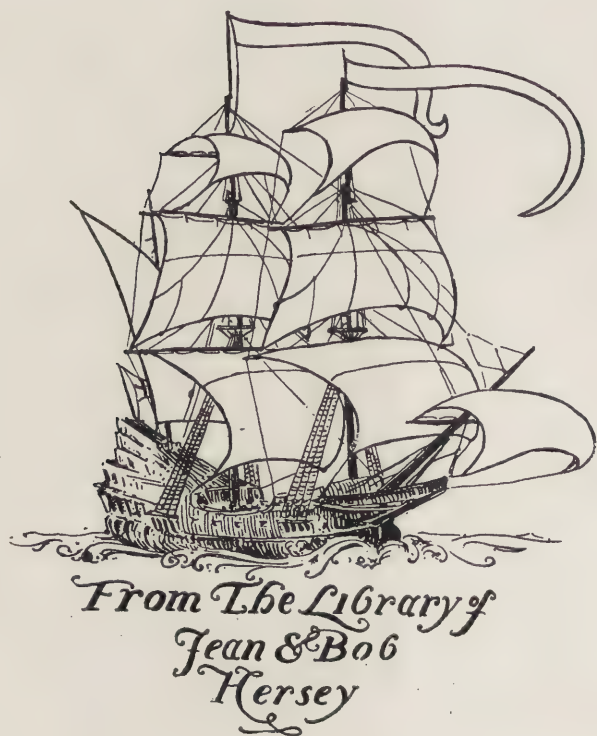
ORGANIZATION CHART OF OFFICE OF GRANGER & BOLLENBACHER DONE BY VICTOR PETERIL



HERE AND THERE AND THIS AND THAT



"SHOTS AROUND THE DRAFTING-ROOM," BY ROYAL BARRY WILLS, BOSTON  
(PRIZE—Class Three—December Competition)



BOOKPLATE BY OLIVER WHITWELL WILSON, NEW YORK  
(PRIZE—Class Four—December Competition)



SKETCH BY L. N. MAXON, SYRACUSE, N. Y.



## PENCIL POINTS

### SULGRAVE MANOR

A BRIEF ACCOUNT of how it came to be, with no reference to the history of this interesting old Manor-house, except, that it dates back to the time of William the Conqueror. It should be familiar to all Americans, such however is not the case.

The subject came to the writer's attention in 1914, on receipt of a photograph newspaper illustration received from a friend in Leeds, England, bearing this inscription: "Our photograph shows Sulgrave Manor-house, the English home of the Washington's ancestors, which has been purchased by the British Committee appointed to make arrangements for the celebration of the one hundred



PEN AND INK DRAWING OF SULGRAVE MANOR, ENGLAND  
BY FRED J. WOODWARD, WASHINGTON, D. C.

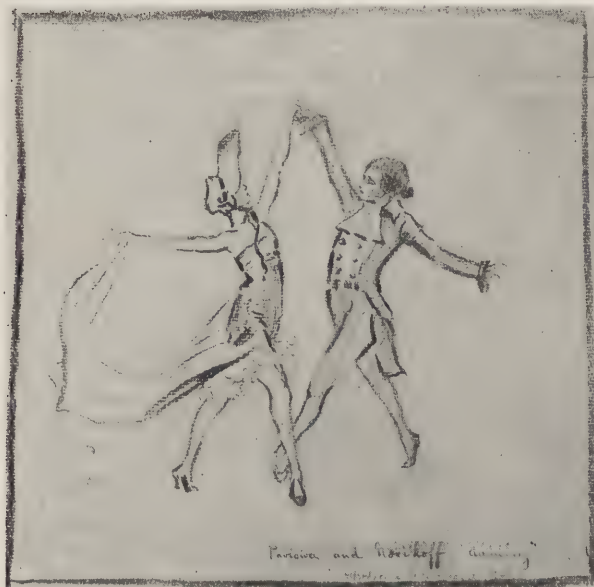
years' peace between Great Britain and the United States of America.

Unable to obtain more light on this subject from Americans who had spent some time in England, the writer found in The Library of Congress volumes of authoritative information and later corresponded with a writer on this subject who lives in Sulgrave village, and to whom I am indebted for much valuable data with many photographs of Sulgrave Manor-house and Sulgrave church.

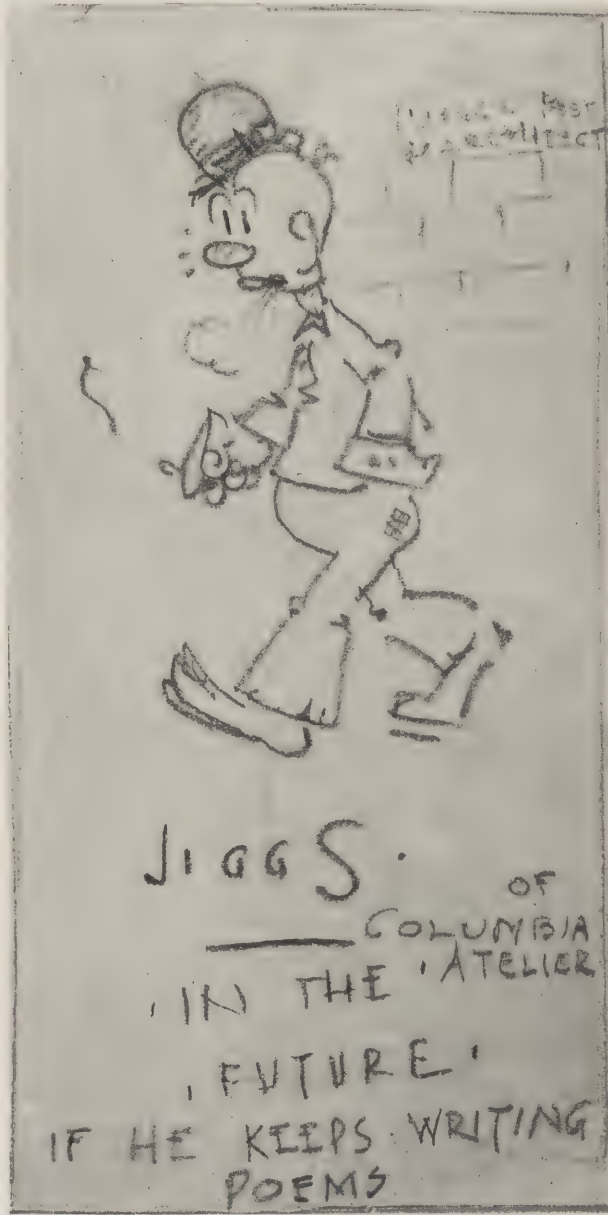
After making several sketches and studies from these, a finished line drawing 17 x 22 inches was rendered in ink. The illustration was made from a reproduction of this drawing.



SKETCH BY HAROLD W. BARKER



SKETCH BY D. KEITH WILSON  
Made at the Hippodrome, Cleveland



ANONYMOUS



# THE SPECIFICATION DESK

A Department for the Specification Writer

## SPECIFICATIONS

By W. W. BEACH

### CARPENTRY, PART XV

HAVING TAKEN CARE of the Roofing and Sheet Metal Work Division of these specifications for a Consolidated District School Building (in the December issue of PENCIL POINTS), we have next in order Division K, Carpentry.

This division is the natural catch-all for everything in building construction which does not automatically belong in any other branch. To a certain extent, in localities where building operations are controlled by the union, an architect feels bound (or is made to feel so) by their trade agreements and stipulations. But the carpenter has been more or less a general contractor for so long that he can nearly always contract to supply anything he chooses to bid upon, then sublet as convenience or expediency dictates.

If he gets into trouble, it is generally his own fault or that of the unions. Take, for instance, the one troublesome item of setting steel sash. This privilege has been bandied about from year to year and varied locally until it is almost necessary to get a ruling on each particular job in order to keep out of difficulties. But one is safer letting the work to a carpenter who can sub-let to a metal concern, if need be, than to let it to a steel concern or ornamental iron contractor in the first place, and later discover that such party can't employ carpenters though the latter will not allow the steel men to touch the sash.

Again, a wide-awake general contractor may sub-divide the following work into several sections, retaining as carpenter work proper only that portion performed at the building, either by his own forces or by sub-contract.

For larger jobs than this, it might prove advisable for the architect himself to make some such separation. Wood Frames and Sash, being required far in advance of finish carpentry, can be thus segregated, as can Steel Sash, Metal Doors and Frames, Cabinet Work, Weather Stripping, Finish Hardware, etc., *ad lib*.

The specification writer need not, therefore, feel at all abashed if he find himself treating the carpenter as the "Pooh Bah" of the job. History and tradition concede him the place and its perquisites. Let him have both.

Therefore:—

#### DIVISION K. CARPENTRY

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the work and are parts of and apply in full force to these Specifications for Carpentry. The Contractor shall refer thereto as forming integral parts of his contract.

#### ARTICLE 1. *Work included.*

(A) THE ITEMS under this Division include:

- (1) ALL ROUGH CARPENTRY, except as stated below.
- (2) ALL FINISH CARPENTRY.
- (3) ALL HARDWARE, both Structural and Finish.
- (4) ALL METAL DOORS, FRAMES AND TRIM.
- (5) BLACKBOARDS, both natural Slate and Imitation.
- (6) WEATHER-STRIPS for all movable Sash.
- (7) SUCH OTHER WORK as is herein set forth.

(B) OMISSIONS. The following items, not embraced in this Division, will be found elsewhere in the Specifications:

- (1) FORMS for Concrete.
- (2) BURLAP AND CANVAS Wall Coverings.
- (3) ALL GLASS.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings in this article there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following specifications beginning with Art. 3.

- (A) ROUGH CARPENTRY shall be provided for:
- (1) SHEATHING AND STRIPS under metal roofs.
  - (2) SCUTTLES AND CURBS in roof.
  - (3) WOOD LADDERS to roof.
  - (4) PLANK RUNWAYS, STEPS AND PLATFORMS in attic.
  - (5) FLOOR STRIPS, SUB-FLOOR and building paper in gymnasium, also strips under other wood floors.
  - (6) DOORS of double-thick matched flooring in fresh air in-takes.
  - (7) GROUNDS for all wood finish.
- (B) WOOD SASH AND FRAMES shall be provided for all exterior windows.
- (C) BRONZE SAFETY BOLTS for window-cleaners' anchors shall be provided in all wood mullions and jambs.
- (D) HOLLOW METAL DOORS shall be provided in assembly hall, balcony and lantern room.
- (E) HARDWOOD FLOORS shall be provided as follows:
- (1) YELLOW PINE OR FIR in rooms of library suite.
  - (2) OAK in rooms of office suite.
  - (3) MAPLE in all class rooms and other rooms, except where concrete, tile or terrazzo finished floors are specified or indicated on drawings.
- (F) WOOD DOORS shall be provided in all door openings except where metal doors are called for. Folding-sliding doors with hangers and track shall be provided between kindergarten rooms, to slide into closet as detailed. Trap doors shall be provided as shown to afford access to attic.
- (G) CEILING LIGHTS shall be provided under all skylights where indicated, with frames and casings as shown.
- (H) INTERIOR WOOD FINISH shall be provided thruout all rooms as detailed, including trim for tack-boards, blackboards, cutout boxes, balcony front, etc. Picture mold shall be provided, where called for. Wood base shall be provided in connection with all wood floors.
- (1) BIRCH shall be used for all finish, (including doors and platform steps) in assembly hall, balcony and vestibule of assembly hall.
  - (2) OAK shall be used for all finish and doors in all plastered rooms, except as otherwise provided.
  - (3) PINE OR FIR shall be used for finish and doors thruout boiler, coal, tank, engine, ash, blast, play and store rooms, kitchen and shops.
  - (4) WAINSCOT indicated to be covered with burlap shall be of clear white pine or whitewood.
  - (5) INTERIOR SASH shall be provided wherever shown, including certain partitions of same. Complete jambs, mullions, transom bars and trim shall be installed with all interior sash.
- (I) CABINET WORK. This contract will include all seats, teachers' closets, book-cases, bulletin and tackboards and cabinets and cases of all descriptions, wherever shown or detailed, except that metal lockers are not included.
- (J) HARDWARE.
- (1) ROUGH HARDWARE for all purposes shall be provided as and where required.



## PENCIL POINTS

(2) THRESHOLDS of brass, bronze or maple, as called for, shall be provided for all outside doors and for all inside doors in main building where change of floor finish occurs and in basement doorways.

(3) HANGING RODS AND HOOKS shall be provided in class rooms as shown and specified.

(4) FINISH HARDWARE for doors, windows and cabinets shall be provided and set by Contractor under this Division.

(K) WEATHER-STRIPS of zinc and bronze shall be applied to all sliding and hinged sash and jambs thruout building.

### MATERIALS.

#### ARTICLE 3. *Dimension Lumber.*

(A) KIND. Where not otherwise stipulated, dimension lumber shall be Norway or yellow pine, fir or spruce.

(B) GRADE. Each class of lumber shall be of a grade suitable for the particular purpose for which it is used. Where not otherwise stated, all lumber for framing and other concealed parts shall be best grade dimension, straight, sound, free from rot, large or loose knots, shakes, bark or other serious defects, and must be thoroly dry.

#### ARTICLE 4. *Rough Hardware.*

(A) ANCHORS for various structural members are to be provided by the various trades under their several Divisions. The Contractor shall provide all anchors required for his own work, properly placed, to be built in during construction or rigidly secured by expansion screws or bolts. Expansion screws  $\frac{3}{8}$ " in diameter or smaller shall be bronze or brass, all others galv. steel, all in lead shells.

(B) ALL BOLTS, SCREWS, NAILS AND CLIPS necessary for placement of work under this Division shall be provided in connection with same. All shall be correct material of proper strength for the particular function.

(C) SASH WEIGHTS shall be of lead, except where there is amp'e room in weight boxes, when round or square cast iron weights may be used. Each pair of weights shall be of proper size to exactly counterbalance the glazed sash.

(D) PULLEYS shall have bronze fronts and  $2\frac{1}{2}$ " cast iron wheels with noiseless roller bearings.

(E) SASH CHAIN shall be hot-galz. steel chain of make listed by the Underwriters' Laboratories and of size next larger than that listed for the particular service required.

#### ARTICLE 5. *Wood Windows and Frames.*

(A) WOOD FRAMES shall be of "C" grade white pine, or first grade fir or spruce, except that pulley-stiles, parting-beds and pendulums shall be of clear, straight-grained yellow pine, and back and inside linings of weight-boxes shall be good, straight-sawed No. 1 common pine or spruce. When space will not permit wood pendulum, No. 22 gage galv. iron may be substituted.

(B) SASH shall be of clear, straight-grained white pine. No so-called western or sugar pine will be accepted where white pine is called for.

(C) WATER BARS AND ANCHORS shall be of galv. iron or steel.

(D) WEATHER-STRIPS shall be of a type especially approved for this particular work to correspond with sample in Architect's office. Each member shall be of heavy zinc, of design for its particular location, except that springs on check-rails and under bottom rails shall be of spring bronze.

#### ARTICLE 6. *Wood Sheathing and Flooring.*

(A) IN GENERAL. All lumber shall be well seasoned; all finished-flooring thoroly kiln-dried. Where best grades are not called for, all large or loose knots, bark and shakes shall be cut away. All finish-flooring shall be carefully inspected before being laid and all pieces rejected which are not in accordance with requirements.

(B) ROOF SHEATHING shall be common Norway or yellow pine, spruce or fir flooring.

(C) ATTIC PLANK shall be best grade pine, spruce or fir dimension.

(D) SUB-FLOORING shall be common Norway or yellow pine, fir, spruce or hemlock dressed boards.

(E) INSULATING PAPER between floors shall be a good approved grade and make of 2-ply, hard-surface, water-proof insulating paper.

(F) MAPLE FLOORING shall be strictly clear, side-and-end-matched,  $13/16$ " x  $2$ " or  $2\frac{1}{4}$ ",  $2'$   $0"$  to  $16'$   $0"$  long with not over 15% of total board-feet in lengths of  $2'$   $0"$  to  $3'$   $6"$ .

(G) OAK FLOORING shall be first clear plain-sawed white

or red oak, side-and-end-matched,  $13/16$ " x  $2\frac{1}{4}$ ", in lengths as stated in preceding paragraph.

(H) YELLOW PINE OR FIR FLOORING shall be best grade, flat-sawed  $13/16$ " x  $3\frac{1}{4}$ ", side-matched, in good lengths.

(I) PROTECTION. No finish flooring may be stored in temporary structures on the premises, nor brought into building, nor stored therein until all plastering, concrete and cinder fill are thoroly dry.

#### ARTICLE 7. *Interior Finish.*

(A) BIRCH shall be first quality, clear, unselected as to color.

(B) YELLOW PINE OR FIR shall be good grade finish lumber free from prominent defects. Doors in rooms with pine or fir trim shall have white pine stiles and rails and yellow pine panels.

(C) PLAIN-SAWED, clear red oak shall be used for all finish thruout the building where not otherwise distinctly stated.

(D) PROTECTION. No wood finish may be stored on premises except in paint shop, where it shall be delivered to Painter, as fast as he can care for same, and shall there remain until all concrete and plaster are dry and ready for trim.

#### ARTICLE 8. *Metal Doors and Trim.*

(A) ALL HOLLOW METAL WORK shall be cold-rolled, open-hearth steel of the very best grade, using No. 18 gage for all metal facing. Formed and molded work shall be cold-drawn metal, heated only for welding. Reinforcement shall consist of No. 10 gage steel, bent to the required shapes, or approved structural rolled shapes.

#### ARTICLE 9. *Finish Hardware.*

(A) PRICED ALLOWANCES. Under a priced allowance of \$3,000.00, the Contractor shall provide finish hardware for all parts of the work, said price to cover the cost of all items delivered into a designated room in the first story of the building, each item (or group of like items) separately wrapped and marked for intended location. Pulleys, sash-chain, sliding-door hangers, track and brackets and the brass hooks and hanging-rods in class rooms are not considered hardware but shall be supplied as elsewhere specified.

(B) SELECTION of all items of finish hardware and their derivation shall be as directed by the Architect. After selection, the vendor shall submit a complete schedule of all items and make changes in same, as demanded by the Architect, until approved. All items shall be in exact accordance with the approved schedule.

(Author's note. The practice of making a price allowance for finish hardware and other catalogued commodities or features of special design is not recommended as the most advisable method of specifying. It is done here, quite regardless of its general propriety or impropriety, simply because a true hardware specification is not an appropriate part of a series of so general a nature as this. Such a specification is necessarily specific and replete with catalog reference, presumably with "or equal" clauses, both of which we are carefully avoiding.

If one distinctly prefers the scheme of priced allowances, it is important that the amount be carefully derived (to avoid owner's criticism), even though a clause in the General Conditions states how variations from such amounts are to be handled.)

#### ARTICLE 10. *Blackboards and Tack-boards.*

(A) GENUINE SLATE shall be provided for all wall surfaces where blackboards are called for and shall be best commercial product, of even dead black color.

(B) IMITATION SLATE shall be provided in all doors and other movable panels where blackboards are called for and shall be approved composition material,  $\frac{1}{4}$ " thick, with writing surface equal in color and all other respects to the genuine slate.

(C) TACK-BOARDS shall be provided for bulletin-boards and in all other locations where cork-board is called for and shall be approved cork-board with solid wood or composition backing.

(D) SAMPLES of genuine and imitation slate and cork-board,  $12$ " square, shall be submitted for approval.

### WORKMANSHIP.

#### ARTICLE 11. *Structural Carpentry.*

(A) BUCKS shall be provided of proper size for all openings in partitions (including register openings) properly



## PENCIL POINTS

placed and anchored, in ample time to prevent delay to other trades.

(B) **ROOF SHEATHING.** All roof surfaces under metal covered roofs, decks, steep watersheds and other surfaces above roof plane, where called for, shall be covered with  $\frac{3}{8}$ " x  $5\frac{1}{2}$ " matched pine, fir or spruce flooring from which all serious defects shall be cut out. This sheathing shall be well nailed on 2" x 2" pine strips (or 2" x 4" studding, as case may be), 16" o. c. Strips shall be carefully trued up to give proper incline to all roofing surfaces and shall be rigidly spiked in place. Butt-joints of sheathing shall be well broken and shall rest on strips. Sheathing for curved or warped surfaces shall be square-edged and of widths necessary to effect proper application. Both furring and sheathing for such surfaces shall be carefully formed and rigidly constructed. All surfaces shall be inspected before being covered and shall be left in good smooth condition, free from holes or cracks.

(C) **CURBS AND SCUTTLES.** Curbs for scuttles, ridge molds, ventilators, skylights, etc., shall be 2" x 8", dressed common pine, all securely bolted in place. Scuttles shall be built of flooring as specified in foregoing paragraph, on apron of 2" x 4" pine, fitting loosely over curb. They shall have extra-heavy 8" galv. wrot steel T-hinges.

(D) **WORK IN ATTIC.** The Contractor shall provide 3,000 bd. feet of plank for platforms and runways in attic, to be located where directed. This shall include substantial platforms for support of ventilators, also steps connecting different levels in attic. The Contractor shall also provide an acceptable ladder to each roof scuttle and each ventilator platform.

(E) **FLOOR SLEEPERS AND STRIPS.** Under all wood floors,  $2\frac{1}{4}$ " x  $2\frac{1}{2}$ " beveled strips shall be laid, 12" o. c., close to walls and at right-angles to beams (unless otherwise directed) carefully shimmed to proper height to make perfectly level finished floor and securely clipped to steel beams or concrete once in each 5' 0". Clips will be provided and built into concrete by Concrete Workers under direction of Carpenter and shall be bent up when ready for use. Strips shall be carefully notched over conduit wherever necessary.

(F) **CONCRETE FILL** between sleepers is included in Division D. This Contractor shall notify the Superintendent when ready for same and shall inspect same when laid and call the attention of the Superintendent to any irregularities. Upper surface of cinder-concrete shall be  $\frac{1}{4}$ " below tops of strips. This Contractor shall sweep sleepers and surfaces of concrete fill thruout buildings and shall notify Superintendent so that same can be inspected before being covered.

(G) **SUB-FLOOR** of square-edged boards shall be laid diagonally under finished wood floor in gymnasium. All boards shall be laid close, end-joints cut at centers of bearings and well broken. Each board shall be nailed thru face with two 8d nails at each bearing.

(H) **DOUBLE-THICK DOORS** of matched Y. P. or fir flooring in rabbeted plank frames with all exposed surfaces smoothed, shall be provided to close entrances to air intakes. Doors shall be carefully made, put together with c. s. screws and provided with heavy galv. T-hinges, hasps and staples, also approved means of holding open at any angle.

(I) **CURTAIN PLANK** shall be provided, located as directed over assembly hall platform and rigidly anchored in place, for support of curtain.

### ARTICLE 12. *Wood Windows.*

(A) **IN GENERAL.** All exterior windows shall be of wood, with wood sash, hinged, stationary or double-hung as indicated.

(B) **FRAMES** shall be built with weight-boxes for double-hung sash and with  $1\frac{3}{4}$ " rabbeted plank jambs for all others. All members shall be in single piece for entire length. Sub-sills shall be shaped to detail from  $2\frac{3}{4}$ " stock. Box frames shall have all concealed portions thoroly housed as shown and secured with 8d nails not over 8" apart. Pulley-stiles shall have parting beads as shown and openings for access to boxes, covered with bevel-end boards, neatly fitted and screwed in place. Pendulums shall be provided as shown. Pulleys shall be fitted before frames are set, but not permanently placed until sash are set.

(C) **SETTING FRAMES.** All frames shall be set plumb, true and secure in their proper position, rigidly stay-braced, and so maintained by the Carpenter until entirely bricked in. Frames shall also have vertical and horizontal stays inside to hold position until enclosing masonry is set. Water-bar shall be furnished for all frames, driven tightly into groove

in underside of sub-sill and set in reglet in sill in a full bed of cement grout, provided by Mason. Each plank frame shall have a Z-anchor in center of back of each jamb, bent from  $3/16$ " x 12" galv. steel, to be  $8\frac{1}{2}$ " in wall and turned down 2" on jamb and secured to same with 2 c. s. screws.

(D) **SASH** shall be of sizes and thickness shown, with stiles, rails and muntins as detailed, and with lugs on stiles above and below meeting nails, where so shown. All corners shall have mortise-and-tenon joints, with crimped galv. sash staples, all perfectly tight.

(E) **SETTING SASH.** All fitting of sash shall be done as soon as possible after frames are in place, after which the sash shall be delivered to paint room for glazing. After glazing, the Carpenter shall distribute sash to proper locations and properly hang same. Double-hung sash shall be exactly counter-balanced on lead or cast iron weights, hung on galv. chain of proper size running over pulleys as specified. In narrow mullions, single weights shall be hung on pulley to balance two opposite sash.

### ARTICLE 13. *Weather-Strips.*

(A) **ALL MOVABLE SASH** shall be equipped with approved weather-strips properly installed by the Maker's experienced men.

(B) **CONSTRUCTION.** All weather-strip work shall be done after other work in building is practically completed, so that sash may have had opportunity to shrink. Weather-strips shall be perfectly interlocking in jambs and heads and shall be full length of same and of check-rails and bottom-rails so as to completely enclose all sides of sash in best manner. This work shall include the complete refitting and re-hanging of all sash, stops, etc., so that each window shall be a perfectly operating unit.

(C) **GUARANTY.** This Contractor shall guaranty all sash to which weather-strips are applied to remain in perfect condition for one year from date of acceptance of the contract, said guaranty to be countersigned by Maker of weather-strip.

### ARTICLE 14. *Exterior Door Frames.*

(A) **DOOR FRAMES** for exterior openings shall be of  $2\frac{1}{4}$ " plank, rabbeted as detailed, with corners mortised together and transom-bars housed into jambs as shown.

(B) **SETTING FRAMES.** All plank frames shall have proper vertical and horizontal stays inside and shall be properly set in place, absolutely plumb and true and rigidly stay-braced and so maintained until adjoining masonry is set. Each frame shall have Z-anchor on back as specified in Par. C of Art. 10.

### ARTICLE 15. *Grounds.*

(A) **MATERIAL.** All grounds shall be of good grade clear new lumber, dressed to net sizes called for.

(B) **LOCATIONS.** Grounds shall be provided around all openings where wood trim is called for and back of all picture-mold, base, wainscot cap, trim for blackboards and tack-boards, and for all other interior wood trim.

(C) **SIZES.** Grounds for lathed work on furring shall be  $\frac{3}{4}$ " x  $1\frac{3}{4}$ "; for unfurred brick or tile walls shall be  $\frac{5}{8}$ " x  $1\frac{3}{4}$ "; and for walls furred by lather shall be  $1\frac{5}{8}$ " x  $1\frac{3}{4}$ ", all as detailed. Grounds on tile partitions shall be beveled to  $1\frac{1}{4}$ " on face and rigidly attached. Mason will be required to embed a sufficient number of metal wall-plugs in walls and partitions to afford secure nailing for all grounds.

(D) **SUPPORTS FOR PLUMBING FIXTURES** shall be provided by Carpenter wherever required, flush with plaster and concealed back of fixtures wherever possible. Where unavoidably exposed, these boards shall be neatly dressed to match other finish and, when over 9" wide, shall be paneled. All such finished boards shall be secured with round-head brass screws with washers.

### ARTICLE 16. *Finished Wood Floors.*

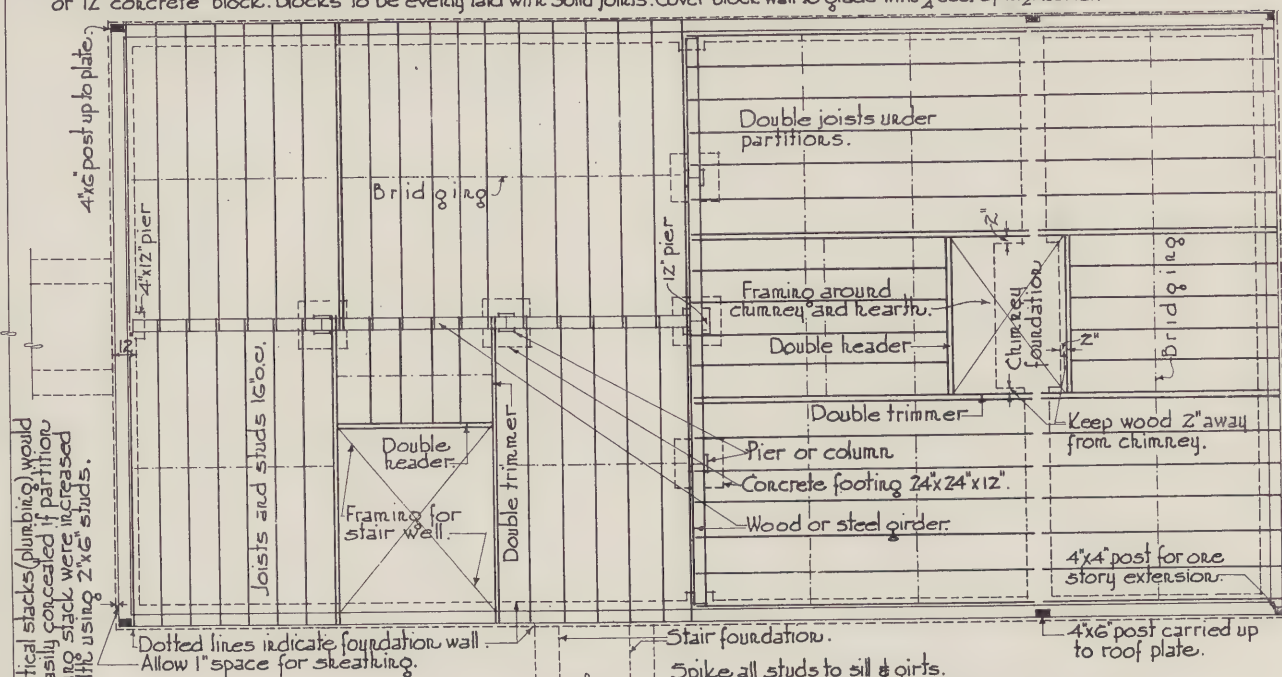
(A) **PREPARATION.** Before starting to lay finished floors, the Contractor shall carefully test all sleepers and floor-strips and true-up all that are not full or level, after which the Contractor shall sweep sub-floors clean, repair all damaged places and notify the Superintendent. All surfaces on which finished floor is to be laid shall, when approved, be covered with a layer of waterproof paper, lapped 2" at all joints and turned up 4" against walls and partitions. Paper must be free from holes and torn places when flooring is laid.

(B) **LAYING FLOORS.** All finish flooring shall be driven

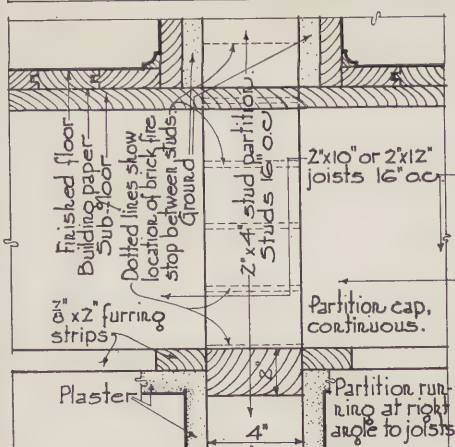


# PENCIL POINTS

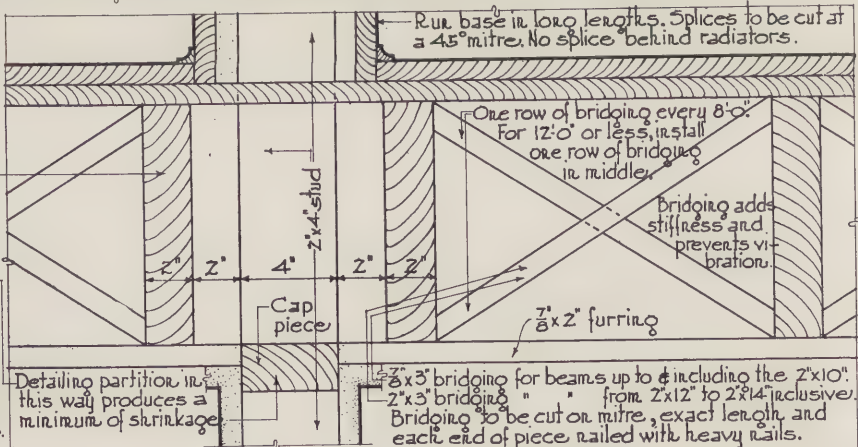
For the average 2½ story house the foundation walls are of 12" brick, 10" concrete (1:2:4 mix), 18" stone, or 12" concrete block. Blocks to be evenly laid with solid joints. Cover block wall to grade with ½ coat of 1½ mortar.



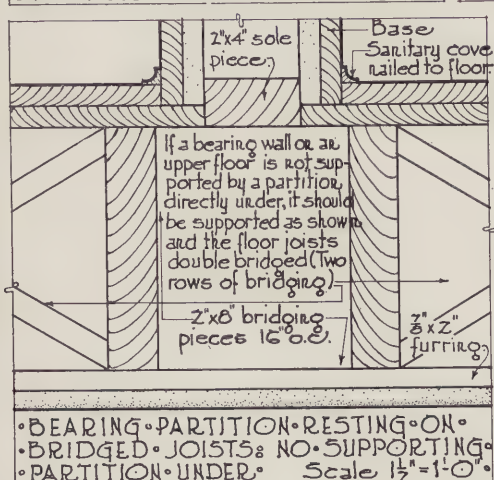
• TYPICAL • FIRST • FLOOR • FRAMING • PLAN • SHOWING • PLACING • OF • PIERS • AND • COLUMNS, GIRDERS, STAIR • WELL • & • FRAMING • AROUND • CHIMNEY • Scale ½" = 1'-0"



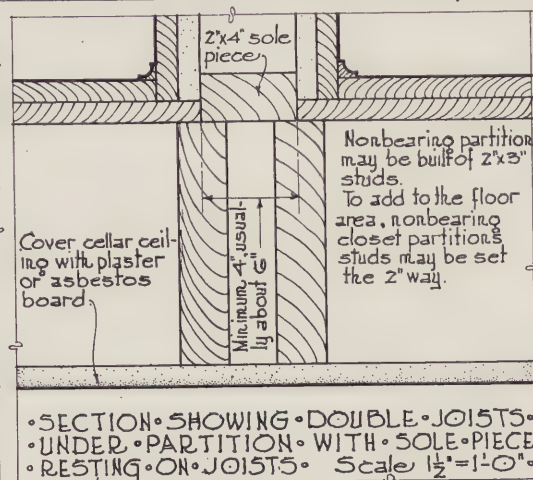
• DETAIL • SECTION • OF • PARTITION • FRAMING • ON • CAP • PIECE • OF • PARTITION • BELOW • 1½" = 1'-0"



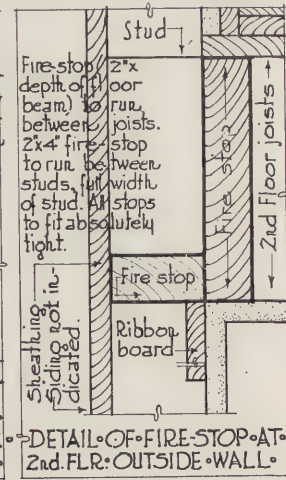
• DETAIL • SECTION • OF • PARTITION • RUNNING • PARALLEL • WITH • JOISTS • SHOWING • CAP • PIECE • OF • SUPPORTING • PARTITION • UNDER • Scale 1½" = 1'-0"



• BEARING • PARTITION • RESTING • ON • BRIDGED • JOISTS • NO • SUPPORTING • PARTITION • UNDER • Scale 1½" = 1'-0"



• SECTION • SHOWING • DOUBLE • JOISTS • UNDER • PARTITION • WITH • SOLE • PIECE • RESTING • ON • JOISTS • Scale 1½" = 1'-0"



• DETAIL • OF • FIRE • STOP • AT • 2nd • FLR • OUTSIDE • WALL •

A PLATE FROM PART II OF "GOOD PRACTICE IN CONSTRUCTION"

This book, by Philip G. Knobloch, is the third volume in "The Pencil Points Library."



## PENCIL POINTS

up tight, by use of grooved blocks, and blind-nailed to every bearing. All end joints shall be well broken and not in noticeable line. End joints between bearings shall be rigidly blocked up. All flooring shall extend under base to plaster. Pieces less than 6' long shall be used only at wall or in closets. Similar floors in communicating rooms shall extend thru openings without breaks.

(C) SMOOTHING. All oak floors and floor of gymnasium shall be rendered absolutely smooth and even, ready for oil or varnish. If electric sander is used, it shall be done with the finest sand-paper practicable and without removal of more surface than necessary to secure smooth job. Hand-scraping shall be done next to base and jambs, where required.

(D) PROTECTION. This Contractor shall notify the Superintendent when hardwood floors will be ready for oil and varnish and shall adequately protect all surfaces with stout paper until Painter starts his work on same.

### ARTICLE 17. Interior Wood Finish.

(A) PREPARATION. All finish shall be thoroly seasoned, kiln-dried and guaranteed against shrinkage. All veneering shall be applied in best possible manner and guaranteed not to split, blister or peel. Wherever possible each length of finish shall be in single piece. No butt joints will be allowed except for long pieces or room molds which may be in two or more long sections, when necessary, with beveled joints. In mitering, flat surfaces shall be cut square and only the moldings mitered. All finish shall be hand-smoothed, ready for painter, and absolutely free from machine or tool marks or any roughness whatever.

(B) DETAILS will be furnished for all finish and these shall be closely followed in every particular. All members applied to plaster, having flat surface of 2" or more, shall be grooved or kerfed on surface applied to plaster.

(C) DELIVERY. All finish shall be delivered in paint shop as rapidly as finishers can care for same, and shall be distributed to its proper location as soon as possible after plastering and concrete are dry. All handling of finish into and out of paint shop and all distributing of same shall be done by Contractor under this Division.

(D) WINDOW TRIM, where not shown to be plaster, shall be of wood as detailed. Stools shown to be marble will be furnished and set under Marble Work. Wood stools shall be 1½" thick, kerfed on under side, unless otherwise detailed. Inside stops shall be placed to fit sash and secured with 1¼" No. 10 brass screws, 18" o. c., and not more than 6" from each end; each screw fitted with an approved brass flush-face washer. Complete trim shall be provided for all windows in plastered rooms. In all unplastered portions, window frames shall be trimmed with wood brick-mold all round.

(E) INTERIOR FRAMES for doors, transoms and windows, including ceiling sash, shall be as detailed, of exact width to finish flush with plaster both sides and with temporary blocks to serve as door-stops until varnishing is done, after which the finish stops shall be applied and properly secured in place. Casings shall be provided for all openings, including trim for electric cabinets and for metal doors where jambs finish with plaster.

(F) INTERIOR SASH, TRANSOMS AND GLASS PARTITIONS shall be constructed as detailed in various locations shown (including boiler room) and of same material as finish of rooms in which located. Sash shall be 1¾" thick, held in place by stops and screws as specified in Par. D above. All partition sash shall be stationary unless otherwise shown.

(G) CEILING SASH shall be provided under skylights where shown, similar to those in preceding paragraph. Sash so indicated shall be pivoted slightly out of balance so as to close automatically.

(H) WAINSCOT CAP shall be provided as detailed over all wainscot of cement, wood or burlap. A loose molding shall be provided, tacked in place, to form panel around all burlap.

(I) WAINSCOT of clear, matched white pine or whitewood shall be provided in exhibit room, to afford smooth backing for burlap.

(J) BULLETIN AND TACK-BOARDS, MIRRORS, GROUND GLASS PANELS AND BLACK-BOARDS shall be trimmed in accordance with details. Bulletin and tack-boards shall be approved ¼" cork-carpet glued solidly to wood or composition backing. Wall black-boards and cork-boards shall be set in rabbets prepared for same, in proper locations, at exact heights, and shall have stops all around, properly nailed in place.

(K) PICTURE MOLD, as detailed, shall be provided in all corridors, stair halls, stair landings and in all rooms where oak trim is called for.

(L) PIPE BOXING shall be provided, of ¾" finish lumber, to enclose all piping except where otherwise indicated. Members wider than 10" shall be paneled. Face or one side of each boxing shall be secured with round-head brass screws and washers about 15" o. c. Boxing shall be finished at bottom with room base and at top with neat crown mold.

(M) IN ASSEMBLY HALL all special trim shall be installed as shown and detailed, including balcony rail, front of platform apron, steps to platform, etc. Floor of platform shall be of maple as specified. Base and steps shall be of birch, treads 1½" and risers ¾". Risers shall be housed into treads and finished with neat mold under nosing. Steps shall rest on substantial carriages, notched to fit and all closely housed into strings.

(N) TRAP-DOORS shall be provided in floors where shown and in ceilings to give access to roof space. Doors shall be same as other 1½" paneled doors, with jambs and casings.

(O) SHELVING of clear yellow pine or fir, shall be provided in Janitor's closets, store-rooms and other locations as shown. Unless otherwise indicated, shelves shall be ¾" x 11½", supported on wall cleats and intermediate standards, evenly spaced not over 3' 6" o. c. Store-rooms shall have 5 shelves, 12" o. c., first one 2' 6" above floor.

### ARTICLE 18. Cabinet Work.

(A) IN GENERAL. Teachers' closets, supply closets, book cases and such additional cabinets and cupboards as are specifically called for in Art. 2 shall be provided and installed as shown and detailed. Each item shall be of the wood specified for the room in which located, except that structural and other concealed parts may be of a good grade of pine, spruce or fir. Backs, sides and tops of cases shall be 7/16" 3-ply veneer or V-joint oak ceiling. Exposed ends of cases shall be paneled. Fronts shall be complete with sash, paneled doors, casings, cornice and molds as shown. Doors and other panel work shall have solid stiles of clear plain-sawed red oak, and all wood panels of same shall be of best approved 3-ply red oak veneer, thoroly glued together. Blocking and framing that is entirely concealed shall be of a good grade of pine or spruce, free from serious imperfections. Sides and slides of drawers shall be of best maple. Bottoms and backs of drawers shall be of clear white pine, poplar or whitewood. Shelves shall be of clear yellow pine or fir, with exposed edging of oak, glued on. Where so shown panels of cork-board and imitation slate shall be built in.

(B) CONSTRUCTION. All items shall be framed in most substantial manner by experienced cabinet makers with all necessary blocking, braces, bottoms, etc., also sufficient heavy cross-supports under all counter tops. Unless otherwise shown, the standards of cases shall be 1½" thick, stiles and rails of doors and panel work 1½", counter shelves 1½", and other shelves ¾". All stiles and rails shall be formed with mortise-and-tenon joints, wedged and glued together. All other parts shall be pinned, glued or screwed in accordance with best practice. Drawers shall have ¾" fronts, ¾" sides and backs, and ¾" 3-ply bottoms; sides dovetailed into fronts, backs rabbeted into sides, bottoms into sides and floors and all thoroly glued together. Sides shall be rabbeted into slides. All shall fit locations for which intended and shall not bind. Shelves in cases shall be adjustable on woodcleats in rachets, 1" apart, or on approved metal shelf supports or pegs, as shown. In the latter case, 4 japanned steel pegs of approved design shall be furnished for each shelf, plus 5% surplus for each case. Peg-holes shall be 1" o. c. vertically and shall be carefully centered to hold shelves absolutely level. ¾" ash rods shall be provided for hangers where shown. Plate glass shelves in trophy cases shall rest on nickel-plated shelf supports of approved pattern.

### ARTICLE 19. Metal Doors and Trim.

(A) IN GENERAL. Hollow steel doors, transoms, sidelights and frames shall be provided wherever called for, of sizes shown, complete with all glass and hardware.

(B) TYPE AND MAKE shall be the best, subject to approval of the Architect.

(C) SHOP DETAILS, SCHEDULES AND MAKER'S SPECIFICATIONS shall be submitted for approval as provided in Art. 4, Division A.



## PENCIL POINTS

(D) MATERIALS shall be as specified in Art. 8.

(E) CONSTRUCTION. Metal panels shall be made with two thicknesses of metal, separated by a  $\frac{1}{4}$ " asbestos filler. Stiles and rails shall be hollow-lined thruout with asbestos board and provided with cork-fillers to deaden the sound; reinforced inside with steel, and special reinforcement of  $\frac{1}{8}$ " thick steel plates provided and spotwelded at points where hardware is to be attached. All joints shall be interlocked and acetylene-process-welded, to conceal the joining and make the doors stiff, rigid, and substantial. The panels shall have approved moldings and stops for glass; secured with round-head bronze screws. Door frames shall be of No. 18 gage steel as specified, reinforced inside with steel angles and anchored into the tile partitions or brick walls with perforated, corrugated iron bonding clips, four on each side and two at the top. At jambs,  $\frac{1}{8}$ " steel plates shall be provided and spot-welded in place at points where hardware is to be attached. Where frames finish entirely within plaster jambs, neat steel mold shall be provided to trim against plaster. Where frames finish flush with plaster complete wood trim shall be provided on that side.

(F) FINISH. All metal work, after being assembled, shall be thoroly cleaned with wire brushes and be free from loose rust and dirt, then given one good coat of approved metallic paint in the shop.

(G) HARDWARE for doors and transoms will be provided and delivered to the Maker at factory and he shall apply same and do all required shop and field cutting, drilling and tapping for same.

(H) INSTALLING. All work shall be delivered and set up complete as required, in best workmanlike manner. Great care shall be exercised in handling and setting the work to avoid injury. Adequate precautions shall be taken to protect the work from all damage after installation.

### ARTICLE 20. *Wood Doors.*

(A) IN GENERAL, wood doors, of material to match finish of rooms, shall be provided for all door openings, except where metal doors are called for.

(B) DESCRIPTION. All doors to toilet room stalls and shower stalls shall be  $\frac{1}{8}$ " thick, of solid wood. All outside doors shall be "B" grade white pine,  $\frac{2}{4}$ " thick, made of 2 thicknesses of  $\frac{1}{8}$ " stock, thoroly glued together. Doors in basement shall be special as elsewhere specified. All other wood doors shall be built up of  $\frac{1}{8}$ " veneer, thoroly glued on laminated white pine cores in approved manner. Hardwood edges all around shall be at least  $\frac{3}{8}$ " thick. Doors between rooms having different finishes shall have one side to match each, except that, where one side occurs in room with pine trim, such door may be hardwood both sides. Doors to wardrobes and teachers' closets shall be  $\frac{1}{8}$ " thick; all doors not otherwise stated,  $\frac{1}{4}$ ". All other sizes shall be as shown on drawings. All shall be paneled or flush-veneered as detailed. Those marked "S. D." shall have glass panels with neatly mitered stops tacked in place to receive glass. Stiles of panel-doors shall have 5" net width.

(C) DOORS TO HEATING CHAMBERS and plenum chambers shall be best seasoned "C" grade white pine, as detailed, trimmed inside and out and special care used to make same air-tight. Each door rabbet shall be fitted with weather-strip all around and provided with wood threshold. Two doors shall be hung in each opening in blast chambers, the inner one to have 4 lbs. of glass in upper panels. Doors to air inlets and pipe trenches shall be built of two thicknesses of matched flooring, one vertical and one diagonal, all well screwed together.

(D) CONSTRUCTION. All panel and veneered doors shall be blind-mortised, tenoned or dowelled, glued and wedged together. All stiles and rails, unless otherwise detailed, shall be molded on the solid, with moldings coped. Sash doors shall have extra deep glass rabbets. All panels shall be 3-ply veneer,  $\frac{3}{8}$ " thick in  $\frac{1}{8}$ " doors,  $\frac{1}{2}$ " in  $\frac{1}{8}$ " doors and  $\frac{3}{4}$ " for  $\frac{1}{4}$ " doors. All hinged doors shall have front edges slightly beveled to fit lock fronts.

(E) SLIDING DOORS in kindergarten room shall be as detailed, hung on hangers and track specially devised for this type of folding-sliding doors. Track shall be of approved design, adjustable to hold doors to true alignment, and properly supported on substantial brackets attached to structural work above. Entire sliding door equipment (other than locks and butts) is included in this Division, shall be furnished in accordance with approved shop drawings and guaranteed to work satisfactorily.

(F) TRANSOMS shall be provided over all doors where indicated by letter "T" on plans (or otherwise), complete as

detailed, with molded transoms-bars and rabbets and stops for glass. Transom sash shall be same thickness as door below, of same wood as adjoining trim and put together in best manner with mortise-and-tenon joints and crimped iron sash staples. Unless otherwise shown, transoms shall be hinged at bottom to swing into rooms and area of single glass shall not exceed 4 sq. ft. Larger areas shall be evenly divided by vertical muntins to such maximum lights. Transoms over outside and toilet room doors shall be stationary.

(G) RE-FITTING DOORS AND TRANSOMS. After all other work has been completed this Contractor shall carefully examine all exterior and interior transoms and doors including all doors and drawers of book cases, wardrobes, supply cases, etc., and shall do all necessary re-fitting and re-hanging of same to make them fit and operate properly.

### ARTICLE 21. *Thresholds.*

(A) FOR OUTSIDE DOORS, thresholds shall be of brass or bronze, natural finish. Where not otherwise detailed they shall be  $4\frac{1}{2}$ " wide and  $\frac{1}{2}$ " high, with beveled edges and of full length of opening between rabbets. Material shall either be  $\frac{1}{4}$ " cast metal or  $\frac{1}{8}$ " drawn or extruded metal, of approved pattern. Where required to accommodate floor hinge plates, thresholds shall be 8" wide with holes cut and milled, with neat rabbet, to exactly fit hinge plates.

(B) FOR INSIDE DOORS. A special maple threshold shall be provided as detailed between inner and outer doors of all hot air, blast and plenum chambers. Elsewhere, thresholds will only be required where change of floor material occurs. Joint between materials shall center under door and shall be smoothly finished under threshold. Unless otherwise shown, these thresholds shall be of No. 10 gage bronze, 3" wide and  $\frac{3}{8}$ " high with beveled edges and full length of width of opening.

(C) PLACING. Each threshold shall be secured by No. 10 c. s. bronze or brass screws, not over 15" o. c. or 3" from ends, either driven into wood floor or into special threshold anchor blocks embedded in concrete. Thresholds for double doors shall have holes cut to serve as strikes for foot-bolts.

### ARTICLE 22. *Hanging Rods.*

(A) HOLLOW BRASS RODS,  $\frac{1}{2}$ " in dia., of  $1/16$ " metal, shall be provided in all class rooms as detailed, supported on brass eyes, screwed into flanges, evenly spaced 2' 10" to 5' 6" o. c. and secured with 3 c. s. brass screws each. Rods shall be perfectly straight and level.

(B) BRASS HOOKS, 12" o. c. shall be provided as detailed for all hanging rods.

### ARTICLE 23. *Placing Hardware.*

(A) FINISH HARDWARE in general, provided as specified in Art. 9, under priced allowance, shall be installed by this Contractor. Hardware for metal doors will be put in place by Maker of same as specified in Par. G of Art. 19.

(B) DELIVERY. All hardware will be delivered at the building into a room where it shall be kept classified and sorted. The Contractor shall receipt for all hardware at delivery and shall thereafter be responsible for same. Shortages, if any, shall be promptly reported to the Architect.

(C) APPLICATION. As rapidly as progress of finished work in building will permit, each opening shall be properly trimmed as follows, all work being done by competent mechanics, especially experienced in application of hardware, each piece in location for which intended:

(1) FOR DOORS: All butts, lock sets, stops, kick-plates, holders, push plates, pulls and rubber-tipped bumpers. Flush-bolts on one of each pair of double-doors shall be put on edge of doors. Check-springs shall be applied only as directed. Special furring blocks shall be provided for same if necessary and approved.

(2) FOR WINDOWS: All sash-lifts, locks, sockets, pulleys, hinges, bolts, catches or sash-centers.

(3) FOR TRANSOMS: Transom-lifters and butts, except for transoms specified to be stationary.

(4) FOR CUPBOARDS AND CABINETS: Catches, locks, butts, drawer-pulls, sheaves, track, sash balance, etc.

(D) PROTECTION. All hardware shall be properly protected and cared for, both before and after being applied, and shall all be in perfect condition when accepted.

### ARTICLE 24. *Blackboards.*

(A) FINISH. All blackboard surfaces shall be smooth and even, polished and finished in best manner for black-



## PENCIL POINTS

board use. All edges shall be smooth-cut and all abutting edges ground and polished to make perfect neat joints.

(B) **THICKNESS.** No slate shall be less than  $\frac{1}{4}$ " thick nor over  $\frac{3}{8}$ " at any point and each piece shall be of uniform thickness thruout.

(C) **SIZES.** Each run of blackboard shall be 3' 6" high, with chalk-rail at designated height from floor, and the run divided into pieces of approximately even size without the use of fillers. Runs up to 6' 0" shall be in even piece; those over 6' 0" and up to 11' 6" in two pieces; over 11' 6" up to 15' 0" in three pieces; over 15' 0" in pieces averaging 1' 0" to 5' 0". Each piece shall be perfectly rectangular and free from slightest warp.

(D) **SETTLING.** All blackboards shall be set by competent mechanics in the best manner, in rabbets prepared to receive

same. For this purpose the Contractor shall have first provided an even surface properly blocked out to afford a solid even foundation. Each piece shall be secured by means of c. s. wood screws, about 3" from each corner and  $\frac{3}{4}$ " in from edges, for which holes shall be carefully drilled and reamed in the slate. Pieces 5' 0" and longer shall have screw in center at top and bottom in addition to one in each corner. Screw-heads shall be concealed behind stops which shall be neatly fitted and bradded in place. All butt-joints shall fit perfectly and be smoothly ground and polished.

(E) **DAMAGES.** All blackboards shall be in perfect condition when offered for acceptance, free from cracks, scratches and paint or varnish spots. The Contractor will be required to place or replace, in perfect condition, any rejected pieces, regardless of cause of damage.

## PUBLICATIONS

### OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Sanitas Modern Wall Coverings.**—Specification folder A.I.A. Classification 28C1. This folder contains samples of the material, specifications, and such other information as is necessary for the information of architects, specification writers and draftsmen. Standard filing size,  $8\frac{1}{2}$  x 11. Standard Textile Products Co. 320 Broadway, New York City.

**Vacuum Cleaning Data Portfolio.**—A. I. A. Classification No. 35-J-1 contains in readily accessible form for the specification writer complete data in installed vacuum cleaning systems. Layouts, tables of piping size, requirements to be considered, etc. Standard filing size,  $8\frac{1}{2}$  x 11. United Electric Co., Canton, Ohio.

**Keramik.**—A very attractive Brochure with 14 full page color plates telling the complete story in word and picture of Keramik, a color penetrant for concrete surfaces. Interiors as well as exteriors are shown, together with specifications and complete information. 36 pp.  $8\frac{1}{2}$  x 11. A. C. Horn Co., Long Island City, N. Y.

**The Low Cost of Dignity and Beauty.**—A new publication on the subject of windows with special reference to the advantages of plate glass. Tables of comparative costs and other important data, together with a large number of attractive illustrations are included. Specifications and complete information for the drafting-room. 36 pp.  $8\frac{1}{2}$  x 11. Plate Glass Mfrs. of America, First National Bank Bldg., Pittsburgh, Pa.

**Speakman Showers and Fixtures, Catalog H.**—Looseleaf edition arranged especially for architects. Numerous illustrations, sectional drawings and complete data on all equipment and specialties required in connection with modern showers. Specifications. 36 pp. Standard filing size,  $8\frac{1}{2}$  x 11. Speakman Company, Wilmington, Delaware.

**Atlantic Terra Cotta.**—Monthly publication for the architectural field., Volume 8, No. 2 being devoted to Studies in Polychromy with a frontispiece in full colors and numerous full page plates showing both ancient and modern examples of Polychrome work. Atlantic Terra Cotta Co., 350 Madison Avenue, New York.

**Illumination Design Data for Industrial and Commercial Interiors.**—Bulletin 41-C recently revised. Much technical data on the subject of illumination so presented as to be quickly available in the drafting-room. Indispensable to those working out difficult lighting problems. 30 pp. and color charts. Size 6 x 9. National Lamp Works of the General Electric Co., Engineering Dept., Nela Park, Cleveland, Ohio.

**Indiana Limestone Details.**—Service publication No. 11, series 4-D. Another interesting number in this series containing detail drawings, together with studies of four important modern buildings. Standard filing size,  $8\frac{1}{2}$  x 11. Indiana Limestone Quarrymen's Association, Bedford, Indiana.

**Fireproof Homes of Period Design.**—A most important book of 72 designs selected from drawings submitted in a national competition. The subjects are well presented and in addition to the illustrations much useful information is included which is especially applicable to small and medium size residence construction. The book contains specifications and detail drawings. 112 pp.  $8\frac{1}{2}$  x 11. United States Gypsum Co., 205 West Monroe St., Chicago, Ill.

**The Rapid Fire Oven.**—Folder illustrating and describing new models of gas ranges. Tables of dimensions, sectional view.  $8\frac{1}{2}$  x 11. The Ohio State Stove & Mfg. Co., Columbus, Ohio.

*Published by the same firm, The Common Sense Kitchen Cabinet, illustrating and describing all-steel kitchen cabinets and All-Steel Enameled Medicine Cabinets.*

**The Low Cost of Dignity and Beauty.**—A new publication and describes this type of gas range, laundry stoves, copper reflector gas heaters, and specialties. Price lists and tables of measurements, etc. 128 pp. 7 x 10. New Process Stove Co., 4301 Perkins Ave., Cleveland, Ohio.

**Iron Fence, Entrance Gates and Ornamental Iron Work.**—Catalog No. 50-A illustrates and describes suitable enclosures for private property, Churches, school houses, Cemeteries, Playgrounds, Factories and every place needing durable and economical fence or entrance gates. Shows methods of setting fence, directions for measuring, etc. 144 pp. 7 x 12. The Stewart Iron Works, Cincinnati, Ohio.

*Published by the same firm, Book of Designs, C, photographic reproductions of entrance gates and fences, 96 pp. 9 x 12.*

**Universal Flush Valve.**—Insert for Catalog "B". Contains full data on this type of flush valve, sectional drawings, details, instructions for specifying, description and dimensions of styles and models, installations, etc. 6 x 9. 20 pp. Philip Haas Co., Dayton, Ohio.

**Cold Weather Mortar.**—New Bulletin presenting desired information in an attractive form. Contains tests, estimating quantities, etc. 8 pp. 6 x 9. National Lime Association, 918 G St., N.W., Washington, D. C.

**Elevator Dispatching System.**—Booklet describing a new and revolutionary system of elevator dispatching which is designed to operate elevators 40% more efficiently than any other system previously developed. A.I.A. File No. 33H. Elevator Supplies Co., Willow Ave., Hoboken, N. J.

**Kewanee Boiler.**—Tests of No. 317 Kewanee Boiler fired with oil burner, containing illustrations of method of connecting oil heaters for oil burner installations in Kewanee Boilers, furnace design for Winslow Oil Burner Tests. 8 x 10 $\frac{1}{2}$ . Kewanee Boiler Co., Kewanee, Ill.

*Published by the same firm. Tests of No. 317 Kewanee Boiler operating at low and high pressures.*

**Stone, Ten Thousand Years Ago and Now.**—Handsome Brochure in sepia showing examples of cut stone in the finest buildings in the country, and abroad.  $9\frac{1}{2}$  x 12 $\frac{1}{2}$  48 pp. Walker Cut Stone Co., Inc., 2403 Center St., Tacoma, Wash.

**Testite Dimension Sheets Necessary for Good Plumbing.**—Loose-leaf Catalog containing cross sections, details, tables, list prices and dimensions, also circular No. 150 containing Wall Hung Closet Fittings and Wall Hung Connecting Units. 9 x 11. The Groeniger Mfg. Co., Michigan & Buttles Aves., Columbus, Ohio.

**Weather Strip Blue Print Details.**—Catalog containing blue prints and data on practical metal weather stripping for double hung sliding windows, doors, illustrations specifications, sectional drawings, method of installation, etc. 40 pp. 9 x 11. The Diamond Metal Weather Strip Co., Columbus, Ohio.

**Coulson Store Front Construction.**—Catalog illustrating and describing practical store front construction, typical installations, full size detail sheet. 8 x 11. J. W. Coulson & Co., Columbus, Ohio.

**The Great Little Book.**—Manual dealing with the mechanical side of the distributors work of the Crown Fuel Saver. Much interesting data and illustrations. Crown Fuel Saver Co., Richmond, Ind.

**Iron Fence, Entrance Gates, Guards, Folding Gates, Etc.**—Catalog No. 35 illustrates various kinds of iron and wire work, also new and ornamental designs. Contains directions for taking measurements, diagrams, typical installations, etc. 144 pp. 7 $\frac{1}{2}$  x 10. Cincinnati Iron Fence Co., Cincinnati, Ohio.



## PENCIL POINTS

**Sewage Disposal for Farms and Suburban Homes.**—Interesting data on this subject, suggested general layout of vitrified clay septic tank and disposal systems, 5 x 8. Eastern Clay Products Assn., 906 Colonial Trust Bldg., Philadelphia, Pa.

*Published by the same firm, Handbook for Plumbers on House Sewers and House Drains, also Standards and price list. Also Flues and Flue Linings with Related Data on Chimneys and Fireplaces.*—A.I.A. File No. 5h.—Catalog on the subject indicated containing standard dimensions, sizes, chimney construction in detail, cross sections, fireplace construction and specifications.

**Clark Jewel Gas Stoves.**—Catalog No. 123 showing complete line of Clark Jewel gas ranges and appliances. Illustrations, price list, and descriptions. 94 pp. 5 x 9. George M. Clark & Co., 179 No. Michigan Ave., Chicago, Ill.

**Quick Meal Gas Ranges.**—Catalog No. 138 illustrates and describes this type of gas range, tables of dimensions, price list, etc. 30 pp. 6½ x 9½. Quick Meal Stove Co., 825 Chouteau Ave., St. Louis, Mo.

**Economical Buildings for Farm and City.**—Catalog containing full information on the subject of Dickey Glazed Hollow Building Blocks. Contains many illustrations, cross sections, floor plans, elevations, etc. 7¾ x 10¼. 42 pp. W. S. Dickey Clay Mfg. Co., Kansas City, Mo.

*Published by the same firm, Safety, Durability and Economy for Roofs, Walls and Chimneys, also Dickey Septic Tank Sewage Disposal Systems.*

**A Historical Sketch of Bridgeport Brass Co.**—Pamphlet containing in interesting form the history of the Bridgeport Brass Co. from its beginning in 1865 up to the present day. Bridgeport Brass Co., Bridgeport, Conn.

**The Air We Breathe.**—Interesting treatise on warm air heating systems as applied to the home. The Williamson Heater Co., Cincinnati, Ohio. 24 pp. 6 x 9.

*Published by the same firm, Division of Engineering—Heating as an Engineers Job.*

**Specifications and Details for the Topping "Easyfold" Equipment for Folding Partitions.**—Folder containing details and sections, illustrations, specifications for Easyfold equipment for schools, churches, hotels, clubs, hospitals and other public buildings. 9 x 11. The Topping Mfg. Co., Ashland, Ohio.

**Modern Modes in Better Plastering.**—Brochure rich with suggestions for the use of Milcor. Many illustrations, and diagram showing Milcor products in the home. 32 pp. 8½ x 11. Milwaukee Corrugating Co., Milwaukee, Wis.

**Storage and Ice House Construction with Denison Interlocking Tile.**—Catalog illustrating and describing various uses of this tile, cross sections, detail drawings, etc. 24 pp. 6 x 9. Ohio Clay Co., 518 Guardian Bldg., Cleveland, Ohio.

*Published by the same firm, Factory and Warehouse Construction with Denison Interlocking Tile.* 32 pp. 6 x 9.

**Iron, Bronze and Wire Work News.**—Monthly publication of interest to architects published by the National Association Ornamental Iron & Bronze Mfrs., 614 Race St., Cincinnati, Ohio.

**Home Walls.**—Catalog illustrating and describing Denison Interlocking Tiles. Illustrations, plans, and much interesting data on the subject. Denison Interlocking Tile Corp., Guardian Bldg., Cleveland, Ohio.

**The Heart of a Room is the Rug.**—Handsome brochure in color showing various ways of treating the decorative features of rooms. 10 full page color plates. 24 pp. 8 x 11. The Bigelow-Hartford Carpet Co., 385 Madison Ave., New York.

**Marquise.**—Catalog showing photographs of installations and original designs. Full information and specifications covering construction. 46 pp. 8½ x 11. The Probert Sheet Metal Co., Inc., Covington, Ky.

*Published by the same firm, Kalamein Doors and Trim.*

**Diamond Grating.**—Folder describing features of design and construction of Diamond Grating. Table of Safe Loads, technical data arranged for the convenience of the Engineer and Specification Writer. William F. Klemp Co., 6624 S. Melvina Ave., Chicago, Ill.

**Ebeo.**—Bulletin "T"—Illustrates and describes ventilated toilet fixtures for schools, comfort stations, public institutions and factories. Full size illustration of the new design of the Ebeo Circular Wash Sink. D. A. Ebinger Sanitary Mfg. Co., Columbus, O.

**Architectural and Ornamental Iron Work.**—Catalog No. 6 illustrates and describes Safety-Lock Pressed Steel Stairs for schools, department stores, factories, banks, theatres, etc. cross sections, details. 44 pp. 8½ x 11. The Hughes-Keenan Co., Mansfield, Ohio.

**Dangler Gas Ranges.**—Catalog No. 211 contains full data on Dangler Gas Ranges and accessories. Descriptions, general information and price list. 48 pp. 7 x 10. Dangler Stove Co., Cleveland, Ohio.

**Hinges.**—Catalog illustrating and describing full line of hinges, butts, shelf brackets, barrel bolts, etc., tables of sizes, price list, etc. 6 x 9. 71 pp. Stiff cover. The Griffin Mfg. Co., Erie, Pa.

**"Angliron".**—Catalog 57 illustrates and describes full line of gas burning appliances and accessories. Very interesting data on the subject with full information. Stiff cover. 8 x 10½. 112 pp. Reliable Stove Mfg. Co., Cleveland, Ohio.

**The Story of Steel Taped (Parkway) Cable.**—Treatise on subject interestingly illustrated with photographs of installations, specifications, tables, etc. 24 pp. 7 x 10. Okonite Co., Passaic, N. J.

**Artstone.**—Attractive Brochure describing Artstone, the advantages of Artstone, where to use it, colors, finishes, cooperation and service. Beautifully illustrated in color. 30 pp. 8½ x 11. George Rackle & Sons Co., Cleveland, Ohio.

*Published by the same firm, Gothic Windows, containing many illustrations of attractive window treatment with Artstone, method of setting and details, also Rachel Cement Proofing Tile, catalog containing illustrations, typical factory section showing spacing of Purlins, details of roof and flushing tile and much useful data.*

**Aluminum Paint.**—A treatise on the physical properties of Aluminum Paint and its uses in modern industry by Junius D. Edwards, Asst. Dir. of research. Aluminum Co. of America, Pittsburgh, Pa.

**Testing Methods and the Importance of Tests in the Oil Burning Industry.**—Interesting treatise on the subject by Han A. Kunitz, J. P. Leask and Leod D. Becker. Copies sent on request to engineers and architects writing for same on their own letterheads. American Oil Burner Assn., 350 Madison Ave., New York City.

**Bulletin No. 6103.**—Illustrates and describes American H. S. Fan, Single Inlet. Illustrates standard arrangements. Tables, dimensions. American Blower Co., Detroit, Mich.

**Building Garages for Profitable Operation.**—Interesting booklet on the subject of modern garages containing illustrations of typical buildings and list of garages utilizing space saving idea. Also briefly describing and illustrating the d'Humy Motoramp System of Inter-floor Travel. 15 pp. 9 x 11. Ramp Buildings Corp., 21 East 40th St., New York.

**Equipment for the Preparation and Serving of Food.**—Catalog C describes and illustrates everything in this line, for hotels, cafeterias, residences, bakeries. Also includes list of kitchen equipments installed all over the U. S. Fully indexed. Very useful and valuable catalog. 364 pp. 8 x 11. The John Van Range Co., Cincinnati, Ohio.

**"Mecco" Fireproof Windows.**—Catalog W illustrates and describes fully this line of fireproof windows and everything in sheet metal building material. Contains illustrations, details, sections, how to order, price list, measurements etc. 72 pp. 7½ x 10½. The Moeschal-Edwards Corrugating Co., Covington, Ky.

**Silence is Golden.**—A comprehensive treatise on sound proofing in modern building construction as accomplished under the Stevens System. Fully illustrated and containing specifications, blueprints and much interesting data. 63 pp. 8½ x 11. Stevens Sound-Proofing Company, 14 East Jackson Blvd., Chicago, Ill.

**Direct Action Gas Ranges.**—Catalog No. 96 illustrates and describes this line of gas ranges completely. Fully indexed. National Stove Co., Lorain, Ohio.

**Nonpareil Refrigerators.**—Catalog No. 84 illustrates and describes Nonpareil modern refrigerators, cooling rooms and equipment for hotels, clubs, hospitals and institutions, and Nonpareil fixtures for grocers, meat markets, delicatessen departments, drug and cigar stores. The C. Schmidt Co., John and Livingston Sts., Cincinnati, Ohio.

**Evernu Seats.**—Catalog G illustrates and describes this product fully. List of installations, special information, summary of advantages, etc. A.I.A. File No. 29-H-22. 28 pp. 8½ x 10½. Never Split Seat Co., Evansville, Indiana.

**The Greenhouse Book.**—Illustrating and describing Callahan Unit-Built Greenhouses. Contains cross sections, dimensions, widths and standard bench plans. 20 pp. 7½ x 10½. The T. J. Callahan Co., Dayton, Ohio.

*Published by the same firm Callahan Direct-Action Sash Operators.* Bulletin No. 5, A.I.A. File No. 27c4.

**Kreolite News.**—Monthly Publication on the subject of wood blocks for floors for bridges, industrial plants and other floors built to withstand heavy duty. The Jennison-Wright Co., Toledo, Ohio.

**Portland Cement Stucco.**—Handsome Brochure containing 12 full page color plates and many other illustrations showing the application of Portland Cement Stucco. Condensed specifications, recommendations of design and construction, instructions how to prepare, how to color materials, overcoating old houses with Portland Cement Stucco, typical construction details showing stucco on concrete tile and block and on frame construction. 64 pp. 8½ x 11. Portland Cement Association, 111 West Washington St., Chicago, Ill.



# PENCIL POINTS

Volume VII

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Number 2

## IN WHICH WE ASK SOME QUESTIONS

IT IS ALL RIGHT FOR US to read the pleasant letters we receive from our subscribers telling us how good the previous issue was (and we have been getting many such lately) but if we permit ourselves to be guided solely by such communications we may suffer a slight swelling of the head and overlook some potentially important features of our work.

PENCIL POINTS may be likened to a three-ringed circus,—the three important divisions of our audience, numerically considered, being those who maintain offices for the practice of architecture, those employed in such offices, and those who today are engaged in the study of architecture. Our main business as we see it is to serve primarily the middle group, the men in the drafting rooms, whatever their particular work in the office may be. This is our very reason for existence and while we have every reason to feel gratified with the growth of our subscription list and with the many encouraging letters we receive, we sometimes wonder if we are doing all of the important things which in our capacity as publishers of a journal for the drafting room we should do; or whether we are overlooking any important subjects which might properly be treated in forthcoming issues of the paper.

So we are asking some questions. Do you as a reader of PENCIL POINTS get from its pages everything you want? Considered from your own standpoint what would you like to see published during the coming year? Have you in mind any problems which you would like to see answered or treated in an article? Would you like to see the journal deal more with "practical" subjects and if so, of what particular kind? Do you subscribe for PENCIL POINTS primarily because you would like to secure from its pages material which you can use in your daily tasks, or do you look to it largely for inspiration by having presented to you the drawings, sketches, renderings and other material produced by men of outstanding ability in their various lines?

Does any part of PENCIL POINTS as at present published fail to interest you and if so, why? Don't be tender of our feelings in answering this question as the only desire we have is to publish the most interesting and valuable journal possible for our field,

and if we are using space today to present material which you don't find interesting we want to know it. It is of course impossible that every article in every issue shall appeal one hundred per cent to every one of our more than fourteen thousand readers; but if in any respect we are failing to hit the bull's eye with any one of our subscribers such information is of great importance and value to us.

The series of reproductions of color renderings commenced in our January number is scheduled to continue throughout the present year. Do you regard these color plates as a valuable addition to the paper and if so have you in mind the work of any particular individuals which you would like to have us consider for reproduction? We have already arranged for most of the plates for this year but shall be glad to know the preferences of our readers if they will be kind enough to tell us what they are.

Just a word addressed particularly to those of our readers located outside of the United States. We are just as anxious to consider for publication sketches, drawings and articles from men in other parts of the world as we are from those in our own country. Our designers and draftsmen would like to see what their brothers in the profession are doing and their contributions are welcome at all times and will be given the most careful consideration, and used if available.

So we are putting it up to you to help us make PENCIL POINTS a more serviceable journal than it is today. We have perhaps been moving too fast during the past five or six years to have gotten into a groove or rut and we hope always to retain the greatest flexibility and the broadest outlook. We are not thinking along cut and dried lines and if we should ever reach the point where we cease to make a constant and vigilant search for better things we would feel like shutting up shop and taking a long vacation.

We said in our first editorial that it would be our purpose to edit this paper *with* our readers rather than *for* them and we feel the same way about it now. Many valuable suggestions have come to us in the past and are still coming. We want you all to know that the latch string is out and that we are not only willing but anxious to have you keep us in touch with your needs and points of view.





DRAWING BY HENRY HORNPOSTEL OF HELL GATE BRIDGE OVER THE EAST RIVER



# MASTER DRAFTSMEN

## XVII—HENRY HORBOSTEL

By Francis S. Swales

*With this installment Mr. Swales resumes the authorship of the series published under the heading "Master Draftsmen," the chapters on Mr. Charles Z. Klauder and Mr. Thomas Hastings having been prepared by a member of the PENCIL POINTS' staff. Mr. Swales has in preparation several more articles in this series which will appear during 1926.—Editor.*

WHEN, AT THE AGE OF SEVENTEEN, young Henry Hornbostel graduated from the Brooklyn High School, his father, who had noted his son's love of gay neckwear, resolved to put him in the silk business. Into it he went, and there—it must have been!—he acquired from a supply of material really intended for chorus girls' garters, the gorgeous ties that have been part of his picture ever since. "All dolled up" for the rest of his life, he concluded he did not like the silk business.

The principal at the high school had observed that the youngster could draw and advised his father to send him to Columbia University to take the course in architecture, and there he went. He became an industrious student and graduated at the head of his class in 1891.

During his vacations he found employment as a draftsman in the office of DeLemos and Cordes (well remembered as the architects of Washington Bridge over the Harlem River); and as a superintendent of construction of buildings on Welfare Island designed by Dickson & Withers. In this latter capacity he had opportunities to see humanity at its worst, and to receive impressions of a kind which, if not pleasant, were not such as to drive an intelligent young man to drink. Towards the end of his course at Columbia he entered the office of Wood and Palmer where he remained some time working as a draftsman.

Among his classmates at Columbia was Lloyd Warren, who became his friend and urged him to study at Paris before settling down to business. Warren undertook to pay the expenses of Hornbostel's training at the *Ecole des Beaux Arts* and finally persuaded him to go.

Arrived at Paris he entered the Atelier Ginain and became known as "*le premier Americain*"—(though Carrère, Professor Boring and Brockway had preceded him)—as being "the first" after a number of years since the last had departed. Soon after completing the second class at the *Ecole*, Hornbostel began to acquire a reputation in the offices of Parisian architects as "*l'homme perspectif*," by reason of his introduction of

perspective sketches in the presentation of his *esquisse* problems in the first class of the school. Like others in this country he had been attracted to the idea by the clever sketches of Otto Reith which were appearing in the architectural journals during the early nineties. Hornbostel's reputation as a perspective draftsman caused him to be employed by several of the leading French architects of the time. Girault, Blavette and others called upon him to make such drawings of their *projets* for the Paris Exposition of 1900. Meantime he won the *Prix d'Emulation* at the *Ecole* for his work in the first class and found an opportunity to enter the lists in a competition instituted by Mr. Ed-



HENRY HORBOSTEL

ward Boit for a memorial, a columbarium, to his daughter. Hornbostel's design won among several submitted by Americans at Paris at a time when American talent at Paris was at, or near, its zenith. The design was executed in black brick and white marble set in a bed of yellow flowers. Naturally he showed his design to his *patron*, Ginain, who looked it over and said, "*Oui, Hornbostel, j'aime beaucoup—les fleurs jaunes!*"

Desire to obtain an intimate knowledge of materials led him to take up odd jobs at Paris with sculptors, painters and other artist-workmen, among them the sculptor Paul Bartlett and Carrias—





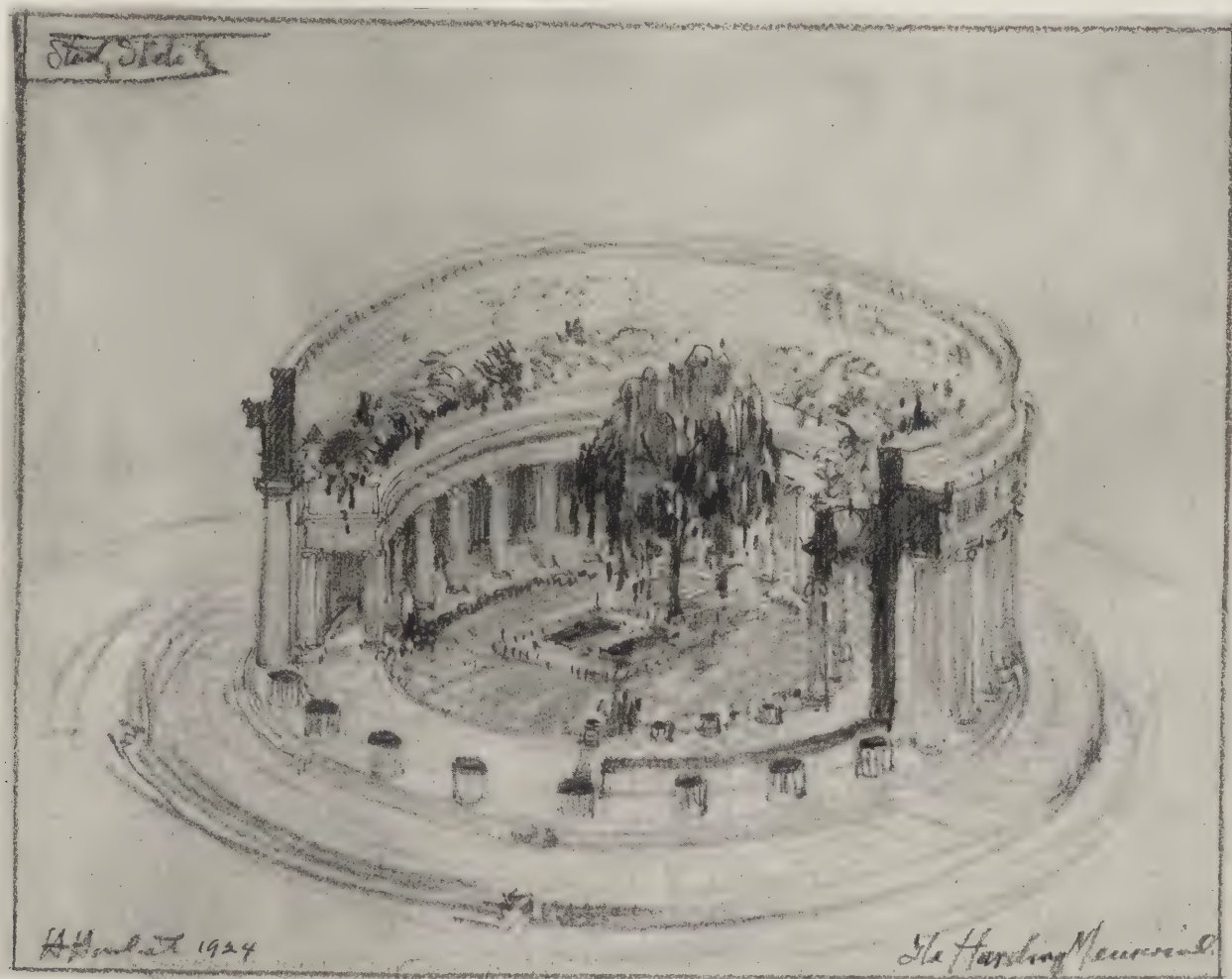
ESQUISSE—ECOLE DES BEAUX ARTS  
BY HENRY HORNBOSTEL



the latter worked a great deal with baked clay, to which he imparted a wonderful finish—with the Swedish painter Zorn, on etching; and in a foundry where DuBois' *Jeanne d'Arc* was cast in one piece by the *cire perdue* process.

In 1897, Hornbostel returned to this country and started work again at perspectives and renderings. He produced some spirited drawings for West Point for Stanford White; and a bridge

National recognition as an architect came when the association of Howells, Stokes & Hornbostel won second prize, and first place among the American competitors, in the competition for the group plan of buildings for the University of California. His work since that time, as a member of the firm originally of Wood, Palmer & Hornbostel (and its later variants, Palmer & Hornbostel, and Palmer, Hornbostel & Jones)



SKETCH STUDY BY HENRY HORNBOSTEL FOR THE HARDING MEMORIAL

at the Buffalo Exposition for Carrère & Hastings, and made presentation drawings for George B. Post, Ingle and Almirall and other leading architects of the time. He also produced the architectural designs for three of the great bridges over the East River and presented them in fifteen big pencil drawings remarkable in imaginative quality and for the clever indication of the structural ironwork.

In open competitions (which were the vogue two to three decades ago, and by means of which most of the best known talent of today was first discovered) his work was soon noted.

and in independent practice which he has carried on since the War, has never failed to gain attention from architects and draftsmen. The number of very important competitions he has won has brought him a popular reputation such as is achieved by very few. His grasp of "the big things" of architectural design and his vigorous way of composing them have made him a factor always to be reckoned with in any competition he has entered. This has been true especially in the cases of the very large and complicated problems. To him details are mere details: even though one such detail may be a number of

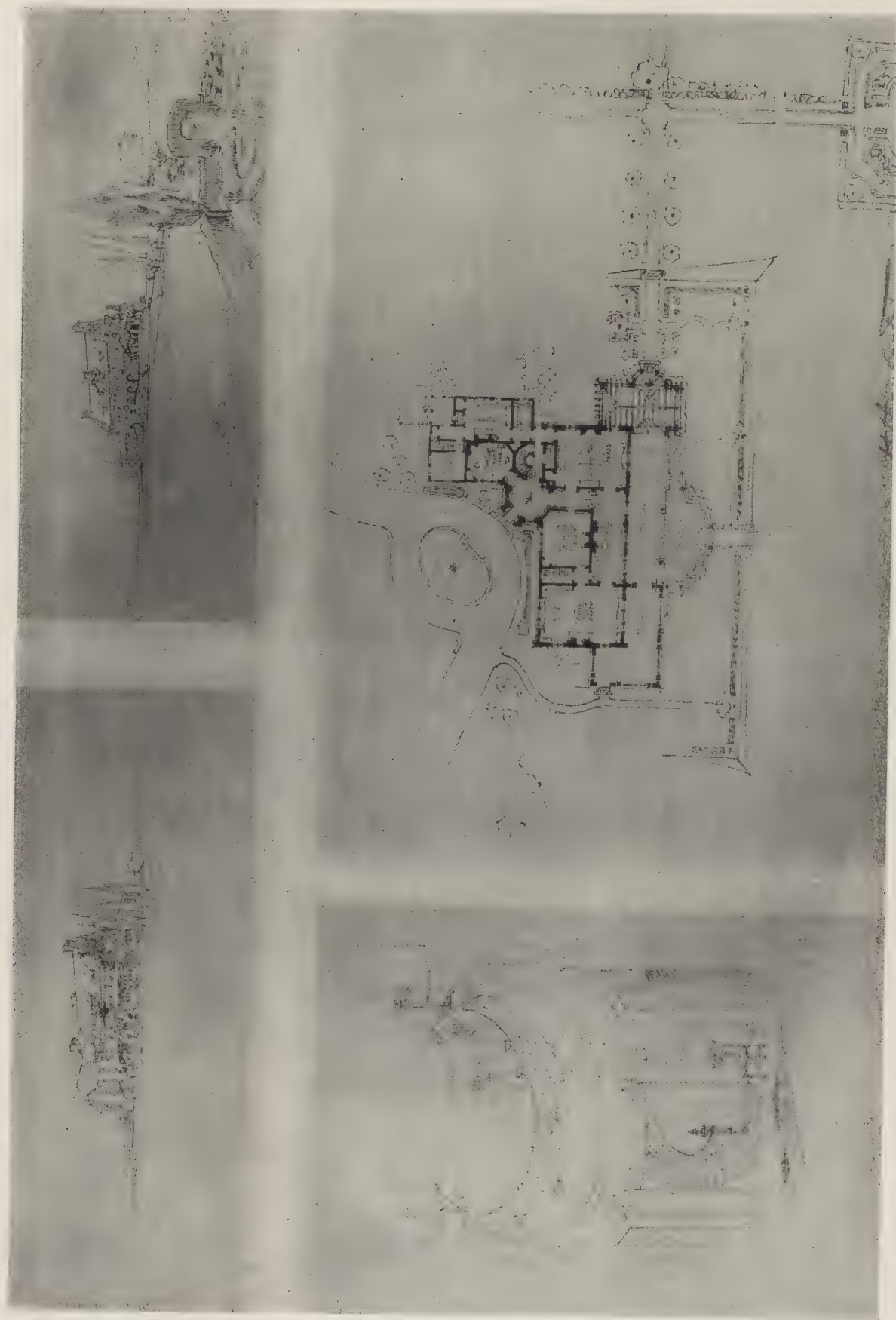




PRIZE WINNING DESIGN SUBMITTED IN A COMPETITION FOR A COLUMBARIUM

BY HENRY HORNOSTEL





SKETCHES BY HENRY HORNBOSTEL FOR HOUSE FOR W. W. CASWELL, ESQ., MAMARONECK, N. Y.



## PENCIL POINTS

buildings of considerable size. He presents his ideas in drawings executed with commanding skill—which of themselves are designs with the same characteristics as his architectural designs—the essential things strongly to the fore and the details held subdued in masses. The style of his drawing shows the rapid transmutation of mind to matter—turning thought to fact in swift,

signed upon leaving for St. Louis to become chief architect of the exposition in 1902. He continued efficiently the good work that Masqueray had begun of developing the talents of younger men and several of his pupils have forged to the front rank of the younger architects of today.

In 1907 Mr. Hornbostel and Mr. Lloyd Warren made a trip to Yucatan; spent two months of ex-



ANCHORAGE—QUEENSBOROUGH BRIDGE OVER EAST RIVER AT 59TH STREET, NEW YORK.

DRAWING BY HENRY HORNBOSTEL, ARCHITECT

sure strokes of the pencil or brush—a lucid unhesitating style of expression—an indifference to subtle things, but never to the effective, forceful and original, nor to the short-cut to accomplish it. His methods were no sooner observed than copied. He had only just returned to the United States, fresh from his Paris training, when younger men gathered together to solicit his patronage of an atelier in New York. Some of the more eager students followed him before he accepted the invitation of the pupils of Masqueray to take up the atelier which the latter re-

ploring the remains of the ancient architecture of that country, previously unknown, and brought back the first photographs of work that have since been much visited and published.

During the War, Mr. Hornbostel entered the U. S. Army overseas, was commissioned Major and served as First Assistant Gas Officer of the 36th Division. He had active charge of the Chemical Warfare of the Division and became a well-known figure, with the sobriquet of "The Gas Nut." As with many of the officers who found themselves undertaking things entirely





STUDY FOR QUEENSBOROUGH BRIDGE, NEW YORK, N. Y.

BY HENRY HORBOSTEL, ARCHITECT.

new to them, Hornbostel found himself advancing as a professional soldier by accident. Some stories that preceded his return give the touch of humor to be expected. One was the demand to shave off his golden beard; coupled with the threat to quit the army if the order became effective. Another was of being examined as to his military information. He was asked, "Who is the Commander-in-Chief of the Army?"—he was not the only officer in doubt as to that point, but gave the high school answer: "The President of the United States." "Right," said the examiner, and added, "You seem surprised." "I am," said Hornbostel.

Since the War Mr. Hornbostel has made his headquarters at Pittsburgh, carrying forward a great deal of large and interesting work, gained through reputation. As with most successful architects three distinct periods may be noted in his career: the first, as a student, and draftsman; second, that when most of his work came as the result of competition; and third, that which comes mainly from repu-

tation gained during the two earlier periods. It is worth noting that he still draws with the same old enthusiasm and skill, as shown by the illustrations of the field sketch made during the War shown on page 92 and of the sketch for the Harding Memorial made only a few months ago.

The latter, and the drawings of the Candler house, (see page 90) afford models of free technique. To make a copy of such drawing would be helpfully corrective to anyone who finds his own style of drawing mechanical, or burdened with too much method.

As a draftsman Hornbostel's influence has been all in the direction of the free, quick expression of the imagination.

His medium, as instanced by most of the illustrations accompanying this article, is usually pencil. The colored crayon is used frequently to give the hues when color has a part of importance to play. But Hornbostel is essentially an architect and a draftsman—one does not observe much of the feeling of a painter or of the



STUDY FOR PIER—QUEENSBOROUGH BRIDGE

HENRY HORBOSTEL, ARCHITECT





STUDY FOR WILLIAMSBURG BRIDGE, NEW YORK, N. Y.

BY HENRY HORBOSTEL, ARCHITECT

sculptor in his indication, but a great deal of the character that one finds in the master builders of the Roman aqueducts or the stone bridges of France. If it were not a near defamatory libel to call an architect an "engineer," and if I could count upon the reader as thinking of the Eddystone or Rennie type of engineering—which is an excellent kind of big architecture—I should state that I regard the drawings of Hornbostel as the best expression of engineering feeling that I know.

In such drawings as that of the steel towers of Queensborough Bridge, with the section showing the arrangement of the decks below, one becomes interested in the planning and construction while accepting the beauty of form as a matter of course. And as to the really marvelous indication of distance through to the other end of the bridge and the soaring effect of the tower reaching into infinite space, that is noted only after getting past the "punch in the eye" which the insistent, important arrangement of

the construction hands out to the observer. The same quality is to the fore in the drawing of

the anchorage of the same bridge, though here, and in the one-time projected tower to the old court house at Pittsburgh, we have the touch of color values and dramatic composition of a Canaletto or a Piranesi. But no one who ever used the title of engineer could have given the impression of fine architecture to structural steel work such as Hornbostel has shown in the sharp perspective of the illustration of the Hell Gate Bridge, and no painter could have imparted to the illustration of a design—something which existed only in imagination at the time—the sense of gigantic strength of the truss work, reaching out a mile beyond the central span and shown in a couple of spots on the drawing each about the size of a postage stamp. A good photograph of the finished structure would fail to give half the definition of the detail of the outrigger girders or the latticed



STUDY FOR PIER—WILLIAMSBURG BRIDGE

HENRY HORBOSTEL, ARCHITECT

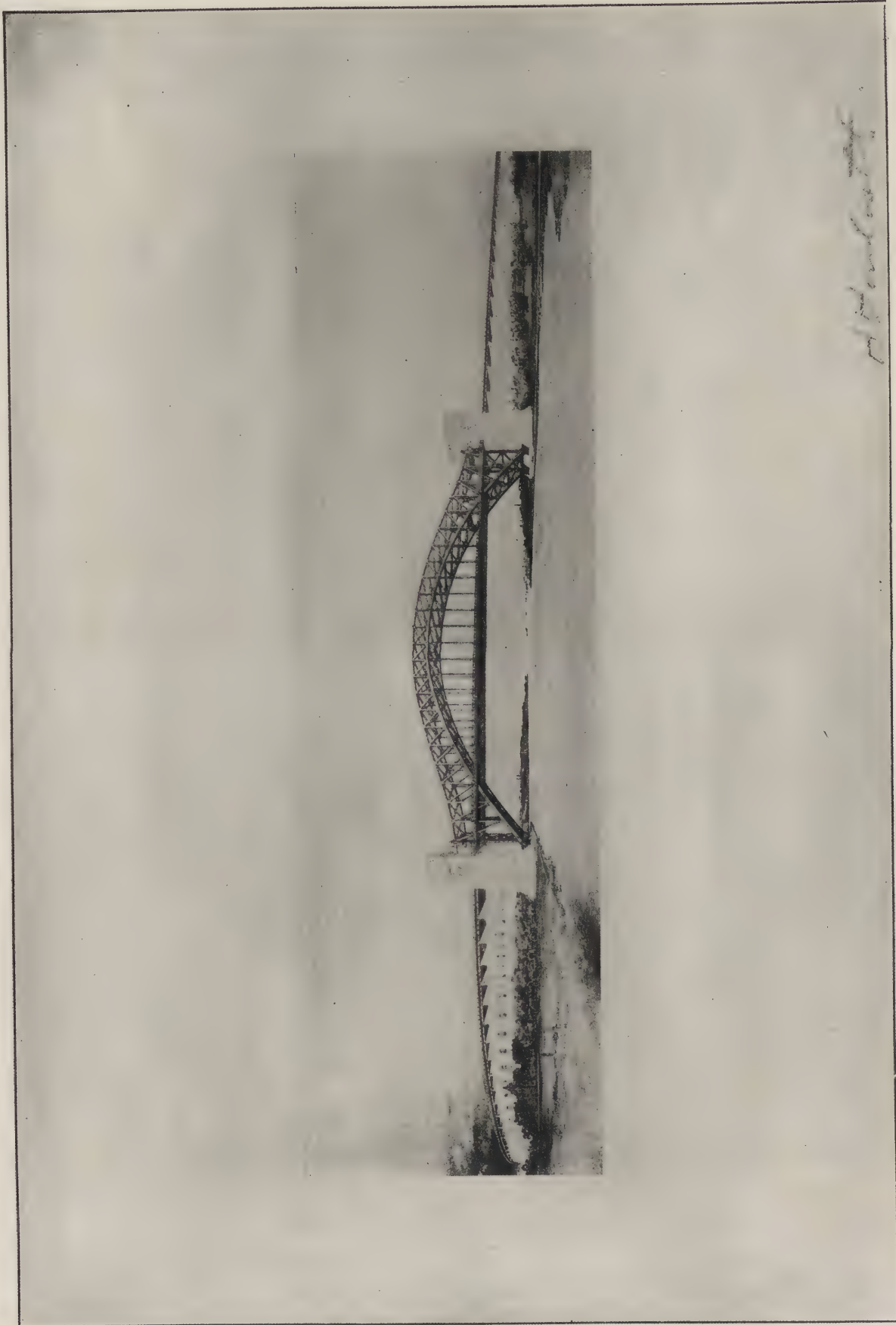




PERSPECTIVE VIEW AT ANCHORAGE PIERS—QUEENSBOROUGH BRIDGE, NEW YORK

DRAWING BY HENRY HORNBOSTEL, ARCHITECT





DRAWING BY HENRY HORNBOSTEL OF THE HELL GATE BRIDGE OVER EAST RIVER, NEW YORK

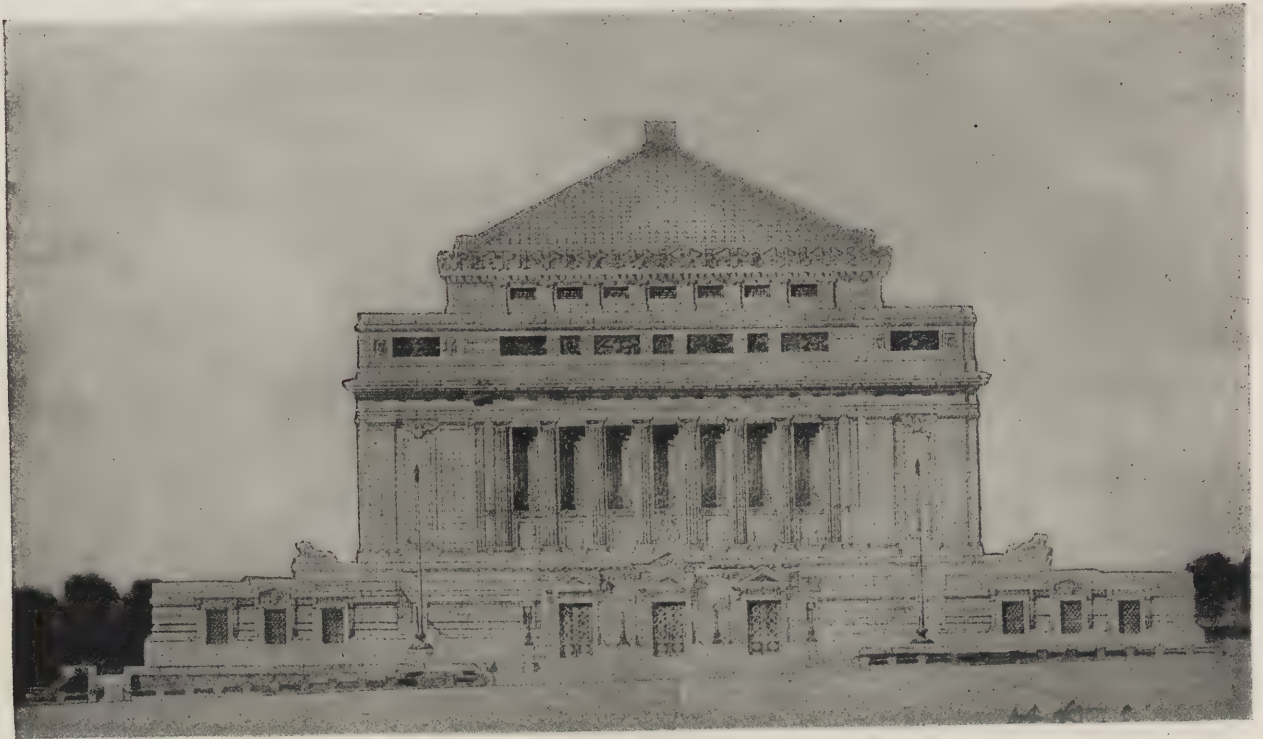




STUDY BY HENRY HORBOSTEL FOR TOWER TO COURT HOUSE, PITTSBURGH, PA.



PENCIL POINTS



SOLDIERS' AND SAILORS' MEMORIAL HALL, PITTSBURGH, PA.  
RENDERING BY HENRY HORNPOSTEL



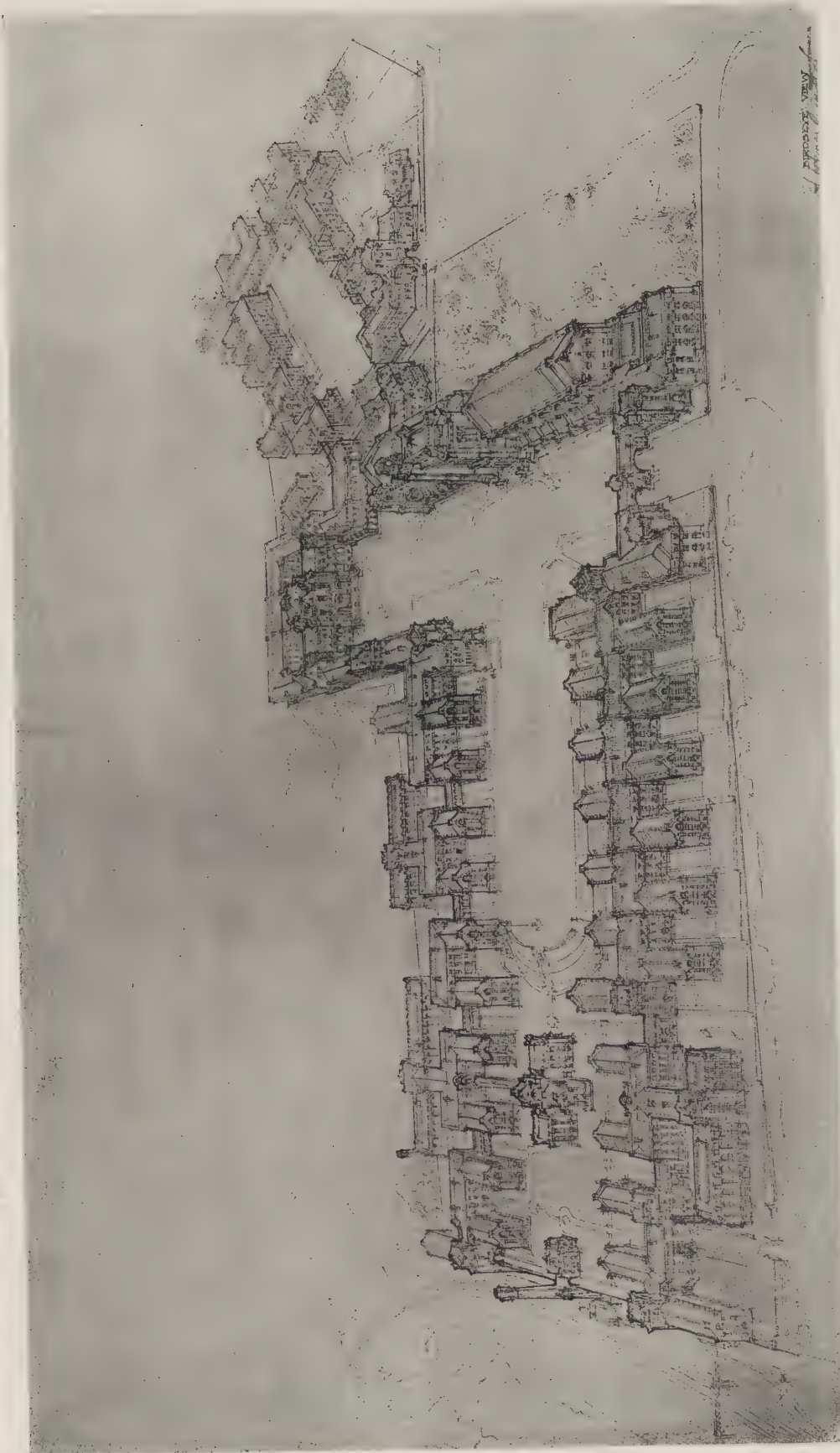
B'NAI ISRAEL SYNAGOGUE AND COMMUNITY CENTER  
DRAWING BY HENRY HORNPOSTEL





DRAWING BY HENRY HORNBOSTEL OF ST. FRANCIS COLLEGE





BIRDSEYE VIEW—CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH, PA.

DRAWING BY HENRY HORNBOSTEL



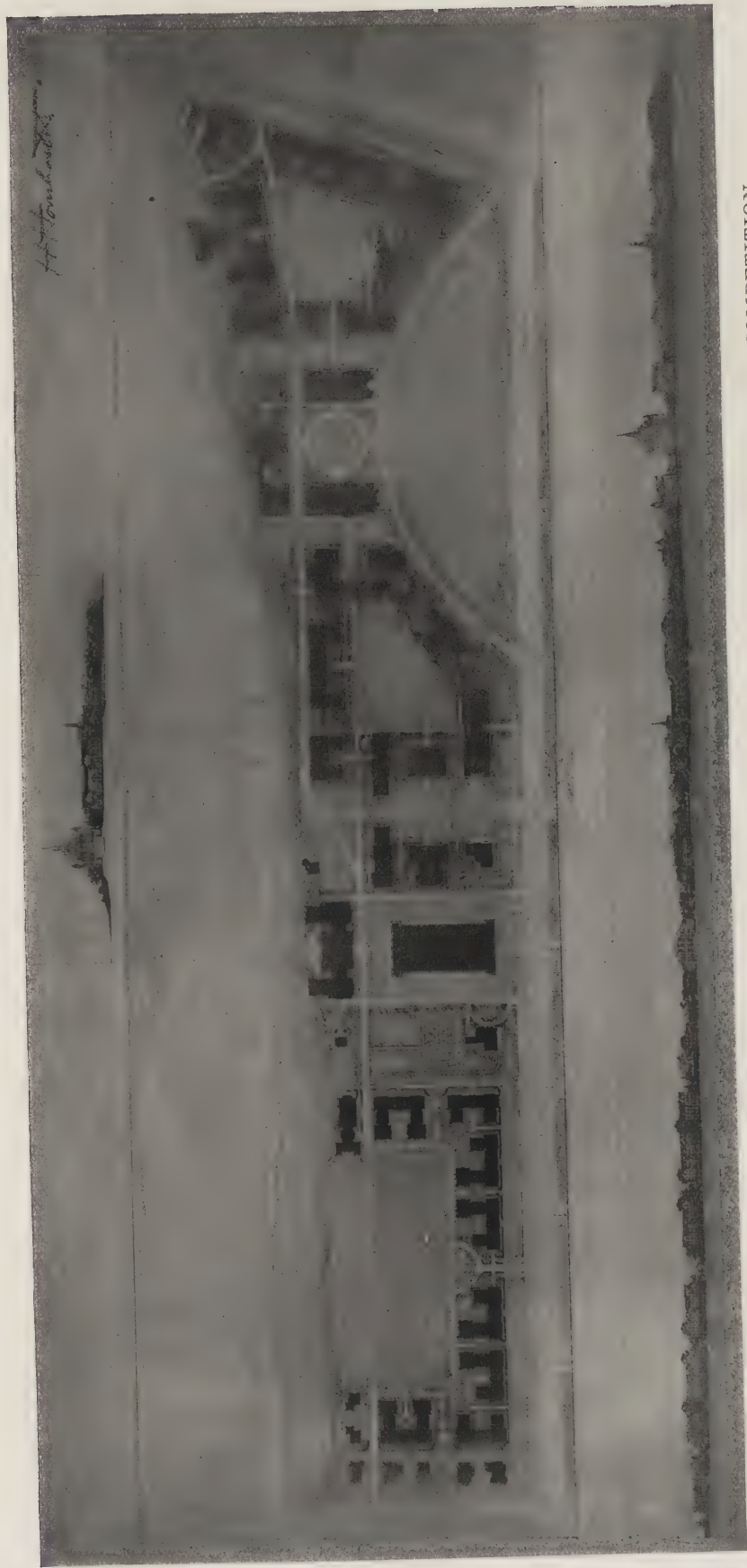


DRAWING BY HENRY HORNBOSTEL FOR THE WESTERN UNIVERSITY OF PENNSYLVANIA, PITTSBURGH, PA.



"BARNUM AND BEAUZAR'S" GREAT ARCHITECTURAL CIRCUS PARADE  
 CARTOON BY THE LATE STEWART BARNEY AFTER MR. HORNBOSTEL'S DESIGN FOR THE WESTERN UNIVERSITY OF PENNSYLVANIA





DRAWING BY HENRY HORNBOSTEL SUBMITTED IN THE NORTHWESTERN UNIVERSITY COMPETITION





STUDY FOR A HOTEL AT PITTSBURGH, PENNSYLVANIA

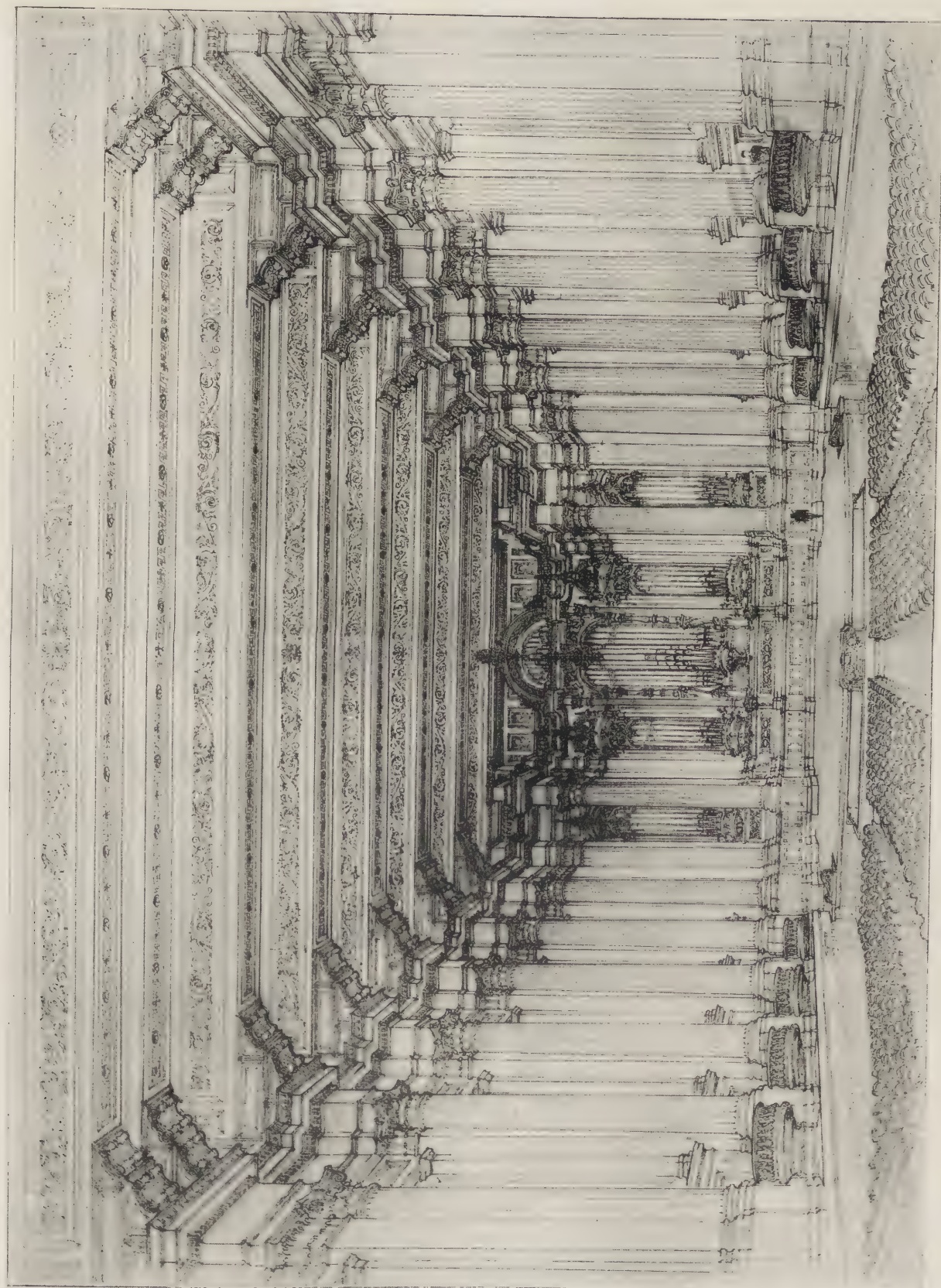
BY HENRY HORBOSTEL, ARCHITECT





SKETCH STUDIES OF TWO INTERIORS BY HENRY HORNOSTEL





DRAWING BY HENRY HORNBOSTEL FOR PROPOSED ALTERATION OF A MUSIC HALL



## PENCIL POINTS



DRAWING BY HENRY HORBOSTEL FOR CARNEGIE INSTITUTE OF TECHNOLOGY, PITTSBURGH

ties between the deck of the main span and the arched truss. And how well and firmly the great black steel legs and feet of the truss seem to stand upon the farther abutment and the slight horizontal turn to the upper chord explains the need of the vertical component of thrust given by the masonry of the tower. One knows that the delineator had a thorough knowledge of the

science of mechanics and statics and imagination which, in the portrayal of his subject, searches well into the mystery of other men's conception of beauty.

In looking at almost any of Hornbostel's drawings one feels that he looks out over a large space, or into infinite distance, and towards an attractive horizon.



SKETCH MADE IN FRANCE DURING THE WAR BY HENRY HORBOSTEL



# DRAFTING ROOM PRACTICE

## PART III—ALTERATION WORK\*

*By Harold D. Way*

BECAUSE OF THE INTEREST SHOWN in the use of photography as an aid in the drafting room, more detailed information and suggestions, we believe, may be generally welcome to those who do not make photography their hobby and so are not familiar with the processes and possibilities of this art.

While useful also in enlarging from small to larger scale, to which reference has already been made, digression is justified at this point because it is especially useful in alteration work.

As an adjunct, even when drawings of the present building are available, it simplifies the work to have a photograph taken from the station point required for study in perspective. This should be taken if possible, with a lens with as long a focal length as possible, at least with such as is found on the Graflex or usual hand camera. A wide angle lens has the advantage of a bigger field but distorts. It is an essential for interiors because of the necessity for photographing at short range and for this the Graflex is not suitable. The enlargements are made on bromide paper which can be selected with a smooth or rough surface to suit one's needs.

In cases in which it is desired to make studies on tracing paper, it will often be a saving in time to ink or pencil in the important details, then bleach the print. The pencil or ink drawing will then be easily visible on a light background, the strain on the eyes being considerably less than would be occasioned by the photograph. The print is not the most pleasing surface to work on and the making of a finished drawing on the print is not recommended. As a method of study, however, there is none more valuable, unless it be the model, than a pencil or pen and ink sketch made over the photograph.

In case it is desired to bleach the image on the print without waiting for a photographer, it is easily done in the drafting room, with the aid of a tray or sink. The bleaching material may be obtained at the larger stores but the writer has used the bleaching powder that comes with the sepia toning tubes. This can be procured at most stores. The bleaching powder is packed in one half of the glass tube and the powder for toning is placed at the other, both clearly marked. Care must be used not to rub the surface of the wet print as the drawing in ink or pencil is easily removed. If no tray is available, the print may be laid flat in an enameled sink and the bleaching solution poured on, not sponged.

The care as to chemical cleanliness that is required for sepia toning or for other photographic work is not required here. No special pains need be taken to free the print from the fixing bath. It is washed afterward and when dry dampened slightly on the back with a sponge and pressed under a light weight.

If perfect bleaching is required it would be better to have the work done by a photographer. The print can often be made large enough for study of additions directly on the photographic print, and ink erasures in pen and ink studies made by sponging off portions with a wet sponge.

Following the requests for a listing of danger signs or a checking list we have prepared such a list for alteration jobs. It would be useless to attempt completeness, but many items included here will suggest others. Furthermore, the list must of necessity be augmented from experience.

An example of this is that of a building in which the walls had every earmark of being solid brick walls. The owner was sure they were, the thickness tallied perfectly for eight, twelve and sixteen inch brick walls with furring and plaster. Imagine the surprise when these were proven to be brick filled between studs with four inch brick veneer and furred on the inside with wood to give the substantial appearance to the walls.

Such experiences set one to thinking and make for caution. Going to the job for a survey of conditions depending entirely upon extemporaneous thinking for everything would appear to be unbusiness-like and certainly not worthy of the profession. Why send the office boy or junior draftsman to the job to make a survey of conditions and not even prompt him as to what is required of him? It is in the attempt to help solve this difficult problem that the checking list is offered.

Drafting room practice and specification writing are as difficult to separate in a discussion of the problem as they are in the architect's office. They both call for practically the same extent of information about existing work. It is obvious but cannot be emphasized too strongly that following the draftsman's common remark, of, "Oh, that will be taken care of in the Spec," the chances are, that in spite of good specification writers, it will more certainly be taken care of if a note is made at the moment the question arises. This is the drafting room responsibility.

It is important in saving on duplication of work that the draftsman who goes out on the job to take measurements and make notes comes back with accurate specification data. An illustration of this is the varnish on trim. A certain specification called for the removal of the old varnish and the wood, washed with sal soda, bleached and put in perfect condition for an acid stain that was specified under materials. Now as we know, an acid stain will not "take" unless the varnish is completely removed and all filler gotten out of the wood. A perfect job was obtained in this instance but at considerable expense. The complete specification covering this problem

(\* Part II published in October, 1925)



saved the owner an extra claimed by the contractor amounting to 45% of the amount of the painting contract.

Another item that should be covered is to require a visit to the site by the bidders. This is not only for the architect's protection but, as is evident upon reflection, it is to the advantage of the owner in the end as well as to the contractor that the estimator should be apprised of the actual conditions.

It is the old story of giving instruction—what is clear to the boss is not always understood the same way by the person instructed. A late captain of industry understood this well when he said that when an employee misinterpreted his instructions he considered himself at fault and not the one who is usually blamed in such a case.

The owner is usually required to furnish the survey, including data on sewers and water, gas and electrical service. It is the architect's business to tell the owner specifically, however, all the detailed information that he needs and in many instances to supply the missing data himself.

The engineering sections are included in abbreviated form because sometimes on smaller jobs and in some localities the engineer is not available. At times the architect is requested to obtain the data and in all cases he should have first hand, general information as to all phases of the subject.

Furthermore, the list contains many items which may not necessarily apply to the making of a survey of conditions at the site but are not to be lost sight of in the preparation of drawings and specifications.

## CHECKING LIST FOR AN ALTERATION JOB

NOTE: Asterisk indicates items to be checked at job

### SURVEY

SURVEY furnished by owner at early stage.

RESTRICTIONS.

GRADES and lines of curbs.

GRADES and lines of sidewalks.

BUILDING and property lines.

WIDTH of streets.

GRADES every ? feet.

CONTOURS in addition to grades if required.

LOT numbers.

LOCATION of buildings.

ELEVATION of floors ..... of buildings.

LOCATION, kind and caliper (4 ft. above grade) of trees.

LOCATION of wells.

LEVEL of water in wells.

LOCATION of street signs.

LOCATION of street lamps.

LOCATION of fire alarm stations.

LOCATION and level of exposed rock.

### SEWER DATA,

LOCATION

SIZE

STORM and sanitary combined.

STORM and sanitary separate.

SANITARY only.

ELEVATIONS of top of manhole and flow line.

DIRECTION of flow.

### WATER SUPPLY,

LOCATION of main or mains.

SIZE of mains.

LOCATION of hydrants

### GAS SUPPLY,

LOCATION of main.

SIZE of mains.

### ELECTRICAL SERVICE,

LOCATION of electric light poles.

LOCATION of transformers.

### PRELIMINARY AND GENERAL INFORMATION

LOOK UP drawings of existing building.

\*LOOK UP drawings filed in Building Department.

\*ARE PLANS required to be filed in Building Department.

\*COPIES of state laws and regulations.

\*COPIES of local laws and regulations.

\*LOCATION of building with respect to cartage.

\*PHOTOGRAPHS of building and site.

\*GENERAL condition of trees.

\*WHAT TREES should be saved if possible.

\*WHAT TREES is the owner most anxious to save.

\*WHAT TREES should be boxed.

\*DISPOSAL of excavated material.

\*MATERIALS reserved by the owner.

\*EARTH fill available.

\*CUBIC yard price for earth fill.

\*QUALITY of workmanship available with local labor.

\*QUALITY of local mill work.

\*UNIT prices of materials.

\*RELATIVE unit prices of materials.

LOCAL materials available

\*Sandstone

\*Limestone

\*Marble

\*Slate

\*Rough lumber

\*Finish lumber

\*Finished flooring

Et cetera.

\*STORAGE of salvaged materials.

\*OWNERSHIP of old materials not used.

PROTECTION of work not altered.

\*PREVALENCE of water or dampness.

\*WATER supply for building purposes.

\*USE of material on site.

UNIT prices for extra work.

LUMP sum prices, net.

LUMP sum prices plus percentage or lump sum.



## CHECKING LIST FOR AN ALTERATION JOB

### PROTECTION of Public.

- \*USE of building by owner during alteration.
- \*USE of owner's telephone by contractor.
- \*TEMPORARY office for builder.
- \*NEED for watchman.

### PROTECTION of Furniture and Equipment.

- \*STORAGE of furniture and equipment.

## GENERAL CONTRACTOR'S WORK

CUTTING AND PATCHING in old work for trades.

CUTTING without permission.

CUTTING endangering stability of structure.

PROTECTION of unaltered portion of building.

PROTECTION of adjoining property.

REMOVAL of rubbish.

### BORINGS:

By owner or contractor

To what depth

Wash

Dry

SOIL TESTS.

TEST PILES.

PUMPING.

- \*ARE temporary sanitary conveniences required.

FORMS for concrete work.

- \*IS temporary elevator required.

\*PAYMENT for electric current.

\*PAYMENT for water.

\*PAYMENT for gas.

\*PAYMENT for telephone.

\*PAYMENT for temporary heat.

\*SHEDS for builder's use.

TEMPORARY sidewalks.

PERMITS for vaults in street.

PERMITS obtained by whom.

BOND for construction of vaults.

ENCLOSED passage way.

SCAFFOLDING.

TEMPORARY fences.

LAYING out building.

- \*USE of building by owner during alteration.

- \*ORDER of making alterations in different portions of building.

PROTECTION of public on premises.

\*PROTECTION of furniture.

\*STORAGE of furniture.

\*PROTECTION of equipment.

\*CONTINUOUS use of equipment during alteration.

\*DATA as to depth of foundations of adjoining property.

## WRECKING, CLEARING & EXCAVATION

WRECKING.

SPRINKLING.

\*OWNERSHIP of materials.

\*REMOVAL of materials.

\*MOVING buildings.

PROTECTING adjoining work.

PROTECTION of sewer, water and gas lines.

MOVING sewer, water and gas lines.

\*REMOVING old foundations.

\*REMOVING trees and stumps.

SHORING on site.

\*SHORING of adjoining property.

\*UNDERPINNING walls of old building.

\*UNDERPINNING on adjoining property.

UNIT price for extra earth excavation.

UNIT price for rock excavation.

EXCAVATION.

TO permit of waterproofing.

PIPE trenches.

\*TO make accessible old walls requiring repair.

\*BOILER foundations.

\*MECHANICAL equipment foundations.

\*WELLS.

\*CISTERNS.

\*WALKS and roadways.

\*ELECTRICAL conduits.

\*PUMPING.

\*REMOVAL of sod.

\*REMOVAL of top soil.

\*DISPOSAL of excavated material.

BACK filling.

\*FILLING old wells or cisterns.

\*FILLING old excavations.

\*DRAINAGE of land adequate.

\*DRAINAGE around walls.

TILE or broken stone drain.

\*SPRINGS.

\*GRADING.

\*ADDITIONAL material for grading.

SODDING.

## MASONRY

### FOUNDATIONS,

\*SETTLEMENT in old buildings.

\*ARE old footings carried below frost line.

UNDERPINNING required.

UNDERPINNING on adjoining property.

\*LOCAL practice for type of construction.

\*KIND of piling used.

KIND of piling required.

EXTRA foundations, unit price.

\*MATERIAL of present footings.

\*INCREASED footings in old work.

### CONCRETE.

\*CONDITION of old work.

\*REPAIRING of old work.

\*CONCRETE work to be removed.

FORMS.

OILING or treatment of surfaces of forms.

CHAMFERING of edges.

\*QUALITY of sand available.

\*KIND of aggregate available.

\*WATER free from acid, salts and minerals.

\*BONDING with old work.

EXPANSION joints.

CONTINUOUS pouring.

PROTECTION of work.

UNDERPINNING.

ANCHORS.

BUILDING in anchors, hangers, etc.

\*FINISH of exposed surface to match old work.



## PENCIL POINTS

### CONCRETE (*Continued*)

- \*MANHOLES.
- CRADLES for tanks.
- \*PIPE trenches.
- \*CASING for sump tanks, oil separators, etc.
- \*TRAP pits, size, location.
- \*RETAINING walls.
- \*FLOOR construction, thickness.
- \*BEAMS and girders, location and dimensions.
- \*CINDER concrete fill.
- \*FILL between wood beams.
- \*WEARING surface of floors.
- \*WALKS, state of repair.
- \*WALKS, location and dimensions.
- \*WALKS, proper pitch.
- \*CURB, state of repair.
- \*CURB, dimensions.

### REINFORCED CONCRETE.

- \*NOTE as to reinforced concrete work to be removed.

SPLICES, anchoring to old work.

TYPES of reinforcement.

FOR finish see "Concrete."

### BRICK WORK.

- \*CONDITION of common brick walls.
- \*PATCHING required.
- \*CONDITION of face brick.
- \*KIND of face brick, make.
- \*SPALLED surfaces.
- PRESERVATIVES.
- \*REMOVING old paint from face brick.
- \*CLEANING of brickwork.
- \*MATCHING old brick.
- \*SIZE of face brick.
- \*MORTAR joint, state of repair.
- \*KIND of joint used.
- \*THICKNESS of joint.
- \*DIMENSION of courses.
- \*COLOR of mortar.
- \*BOND and pattern of face brick.
- \*DIMENSIONS of flues.
- \*LINING of flues and condition.
- \*DIMENSIONS of fireplaces.
- \*FIREPLACE dampers.
- \*FIRE brick lining.
- \*ASH drops.
- \*ASH pits.
- \*CLEAN-OUT door.
- \*ARE brick walls solid or veneered.
- \*FILLING between studs.
- FIRE stops.
- \*FIRE walls.
- BONDING new with old work.
- ANCHORS.
- \*CHASES in old work.
- CHASES in new work.
- CHASES to comply with law.
- BEARING plates.
- \*BONDING of piers.
- \*BRICK sills, pointing.
- GLAZED brick.
- \*EXTENDING chimneys and vents on adjacent property.

\*CLEANING.

\*REMOVING of paint.

\*SAND blasting.

CHIPPING for stucco.

### RUBBLE STONE MASONRY.

\*CONDITION of stone work.

\*USE of local stone.

\*CHARACTER of bond.

\*SPALLING.

\*REBUILDING necessary.

\*BONDING through wall.

BONDING new with old work

\*TYPE of joint.

### CUT STONE MASONRY.

PROTECTING old work.

\*CONDITION of old work.

\*REPOINTING necessary.

\*SIZE of joint.

\*TYPE of joint.

\*KINDS of stone in old work.

\*COLOR of stone in old work.

\*STONE obtained from what quarry.

STONE to match old work.

\*REPLACING stone in old work.

\*INSET pieces in old work only.

\*FINISH on old work.

NEW finish to match old work.

\*SPALLING.

\*PRESERVATIVES.

CORNER stone, disturbing of.

CLAMPS.

THICKNESS of old stone work.

BONDING and anchoring new with old work.

\*KIND of stone coursing.

\*CARVING to match old work.

CARVING to conform to models.

CUTTING on premises required for patching.

PROVISION for lighting outlets.

\*POINTING of parapets.

\*CRACKED lintels.

\*CRACKED sills.

\*CRACKED coping, chimney caps, et cetera.

RESETTING of special ornamental features.

RESETTING of stone ashlar.

RESETTING of belt courses and cornices.

\*FLAGGING, matching, resetting.

\*CURBING, piecing out, resetting.

\*STEPS, matching, resetting.

\*SPECIAL garden features, notes on.

\*CLEANING.

\*SAND blasting.

\*EXTENDING of chimneys and vents on adjacent property.

### CAST STONE.

\*GENERAL condition of.

\*COLOR.

\*TEXTURE.

\*NEW work to match old work.

REINFORCEMENT.

### ARCHITECTURAL TERRA COTTA.

\*CONDITION of old work.

PROTECTION of old work.

\*WORK to be replaced.

DETAIL of new work to match old.



## CHECKING LIST FOR AN ALTERATION JOB

COLOR texture and finish of new work to match old.

RESETTING of old work.

\*REPOINTING.

NEW work to be modeled.

### BLOCK CONSTRUCTION.

\*HOLLOW tile partitions, location, thickness.

\*HOLLOW tile floor construction.

\*HOLLOW tile furring.

\*HOLLOW tile fireproofing.

\*VAULTING.

HOLLOW tile cement filled for special loads.

CHASES in hollow tile.

\*CONCRETE block, data on.

\*CINDER concrete block, data on.

### PAVING.

\*STATE of repair.

\*KIND of material.

\*PITCH to drains.

\*RESETTING.

MATCHING new with old work.

### MARBLE AND SLATE WORK.

\*KIND of marble.

\*KIND of slate.

\*FINISH.

NEW work to match old work.

\*REPLACING.

RESETTING.

### TILE AND MOSAIC WORK.

\*KIND of tile.

\*COLOR.

\*SIZE.

\*FINISH.

\*REPLACING broken tile.

\*DETAIL of cap.

\*ROUNDED corners.

\*COLOR of mortar.

\*BUILT-IN accessories.

### MASON'S IRON WORK.

IRON work set by mason.

SEE "Miscellaneous Iron."

## WATERPROOFING

\*METHODS of waterproofing used in old work.

\*WATER level.

\*AGE of waterproofing of old work.

\*PRESENCE of leaks.

\*PRESENCE of dampness.

SUB soil drainage.

JOINING of new and old work.

WATERPROOFING pipes through old walls.

WATERPROOFING toilet room floors.

\*DRY surface.

SMOOTH surface, refer to "Masonry."

WATERPROOFING on independent walls.

\*KIND of protection used in old work, refer to "Masonry" for alterations.

MASTIC joint pointing between new and old work.

DAMP-PROOFING paints and compounds.

WATERPROOFING paints and compounds.

INTEGRAL waterproofing.

BUILT-UP waterproofing.

## LATHING AND PLASTER

### FURRING.

\*KIND of furring.

METHOD of hanging.

EXPANSION bolts.

FURRING for moulded and ornamental work.

\*FURRING for ducts, to be removed.

\*FURRING for chases, to be removed.

NEW furring for ducts, in old work.

NEW furring for chases, in old work.

\*FURRED ceilings removed.

NEW furred ceilings.

\*INDICATIONS of rust—investigation.

\*OBTAIN information regarding old construction.

### LATHING.

\*KIND of lath.

\*INDICATION of rust—investigation.

\*WOOD lath showing through plaster.

\*METAL beads.

METAL lath for boiler room ceiling, etc.

\*REMOVAL of old work.

\*LATHING for tile wainscot.

### PLASTER WORK.

\*KINDS of plaster in old work.

\*EXAMINATION and note as to amount of patching required.

UNIT price for patching.

\*EXTENT of work.

\*FINISH of new to match old work.

\*REPAIRING discolored work.

PLASTERING behind wood wainscots.

PLASTERING behind wood base.

### STUCCO.

\*GENERAL conditions of work.

\*COLOR.

\*TEXTURE.

NEW work to match old work.

\*REPAIRS to old work.

PRESERVATIVES required.

DAMP-PROOFING.

## STRUCTURAL STEEL

CUTTING and patching required by other trades.

CUTTING and patching required of other trades.

\*INDICATIONS of seepage of water—investigation for rust.

CONNECTIONS of new with old work.

FIELD connections to present work.

RIVETING.

BOLTING.

DRILLING old work.

PAINTING of old work exposed.

STRAIGHTENING material, splice plates.

MEASUREMENTS at job for new work.

INSPECTION by engineer.

## MISCELLANEOUS STEEL AND IRON

\*CONDITION of old work.

\*REPAIRS required.

CLEANING and painting of old work.

\*LOOSE lintels, cutting, resetting.



## PENCIL POINTS

### MISCELLANEOUS STEEL AND IRON (*Continued*)

- BUCKS, cutting.
- SHELF angles.
- \*IRON ladders.
- \*IRON stairs.
- \*FIRE escapes.
- ANCHORS for use in other trades.
- \*COAL chutes.
- \*MANHOLE covers.
- \*SIDEWALK vault doors.
- SLEEVES.
- \*PIPE rail.
- \*SUPPORTS for flood lights, et cetera.
- \*ASH hoist.
- TANKS.
- \*USE.
- \*THICKNESS of metal.
- \*DIMENSIONS.
- GRATINGS.
- \*SIZE.
- \*WEIGHT of metal.

### ORNAMENTAL BRONZE AND IRON WORK

- \*STATE of repair.
- \*REPAIRS required.
- \*HARDWARE required.
- \*MATERIAL.
- NEW work to match old work.
- RESETTING.
- CUTTING.
- CLEANING.
- PAINTING.
- COLOR of bronze.
- FINISH of bronze.
- CUTTING and patching required of other trades.
- CUTTING and patching required by other trades.

### SHEET METAL AND ROOFING

- \*KINDS of metal.
- DANGER of electrolysis.
- \*INFLUENCE of weather conditions on materials.
- \*TYPE of roof best suited to local conditions.
- PAINTING before erection.
- AWNINGS.
- \*DATA.
- \*STATE of repair.
- CEILINGS.
- \*NOTES on existing work.
- FLASHINGS.
- \*SUFFICIENT height for climatic conditions.
- \*STATE of repair.
- \*KINDS of metal.
- FLASHING around pipes.
- CONNECTION to roof covering.
- DIMENSIONS of standing flashing.
- DIMENSIONS of cap flashing.
- FLASHING under window sills.
- \*LEAKS at existing windows.
- FLASHING against adjacent buildings.
- GUTTERS.
- \*TYPES of gutters, detail.
- \*STATE of repair.
- \*PITCH of gutters.
- \*KINDS of metal.
- \*LOCATION.

### LEADERS.

- \*TYPES of leaders.
- \*LOCATION.
- \*SIZE.
- \*METHOD and detail of fastening.
- \*CONNECTION to drain pipe.
- \*CAST IRON shoe at bottom for surface drainage.
- \*LOCATION of leader heads.
- \*DETAIL of leader heads.

### LEADER BOXES.

- \*LOCATION.
- \*SIZE.
- \*GRATING or baskets.

### SCUTTLE.

- \*LOCATION.
- \*DIMENSIONS.

### SKYLIGHTS.

- \*TYPES of skylights.
- \*LOCATION.
- \*STATE of repair.
- \*LEADERS and gutters.
- \*TYPE of frame work.
- \*VENTILATING sash.
- \*OPERATING device for sash.
- \*ACCESS door or sash.
- \*LOUVRES.
- \*DAMPERS for louvres.
- \*GLAZING.
- \*BEDDING of glass.
- \*WIRE screen over skylights.
- \*CONDITION of screen.

### VENTILATORS.

- \*TYPE.
- \*SIZE.
- \*MATERIAL.
- \*LOCATION.
- \*STATE of repair.

### ORNAMENTAL WORK.

- \*KIND of metal.
- \*DETAIL.
- \*ELECTROLYSIS.
- \*STATE of repair.
- REINFORCEMENT.
- \*CORNICES.
- \*BELT courses.
- \*MARQUISE.
- \*FINIALS and crestings.

### ROOFING.

- \*MINIMUM pitch for different types depending upon climatic conditions.
- \*TYPE of roof boarding.
- \*BATTENS.
- \*CANVAS roofing, state of repair.
- \*METAL roofing, state of repair.
- \*METAL roofing, type of seam.
- \*KIND of metal.
- \*COMPOSITION roofing, state of repair.
- \*COMPOSITION roofing, when laid.
- \*TILE roofing, state of repair.
- \*TILE roofing, type, brand, detail.
- \*TILE roofing, valleys, ridges, hips.
- \*SLATE roofing, state of repair.
- \*SLATE roofing, color, quarry.
- \*SLATE roofing, thickness, edges.

(TO BE CONTINUED IN THE MARCH ISSUE)





STOKESAY CASTLE

JAMES MACGREGOR

PEN AND INK SKETCH OF STOKESAY CASTLE BY JAMES MACGREGOR



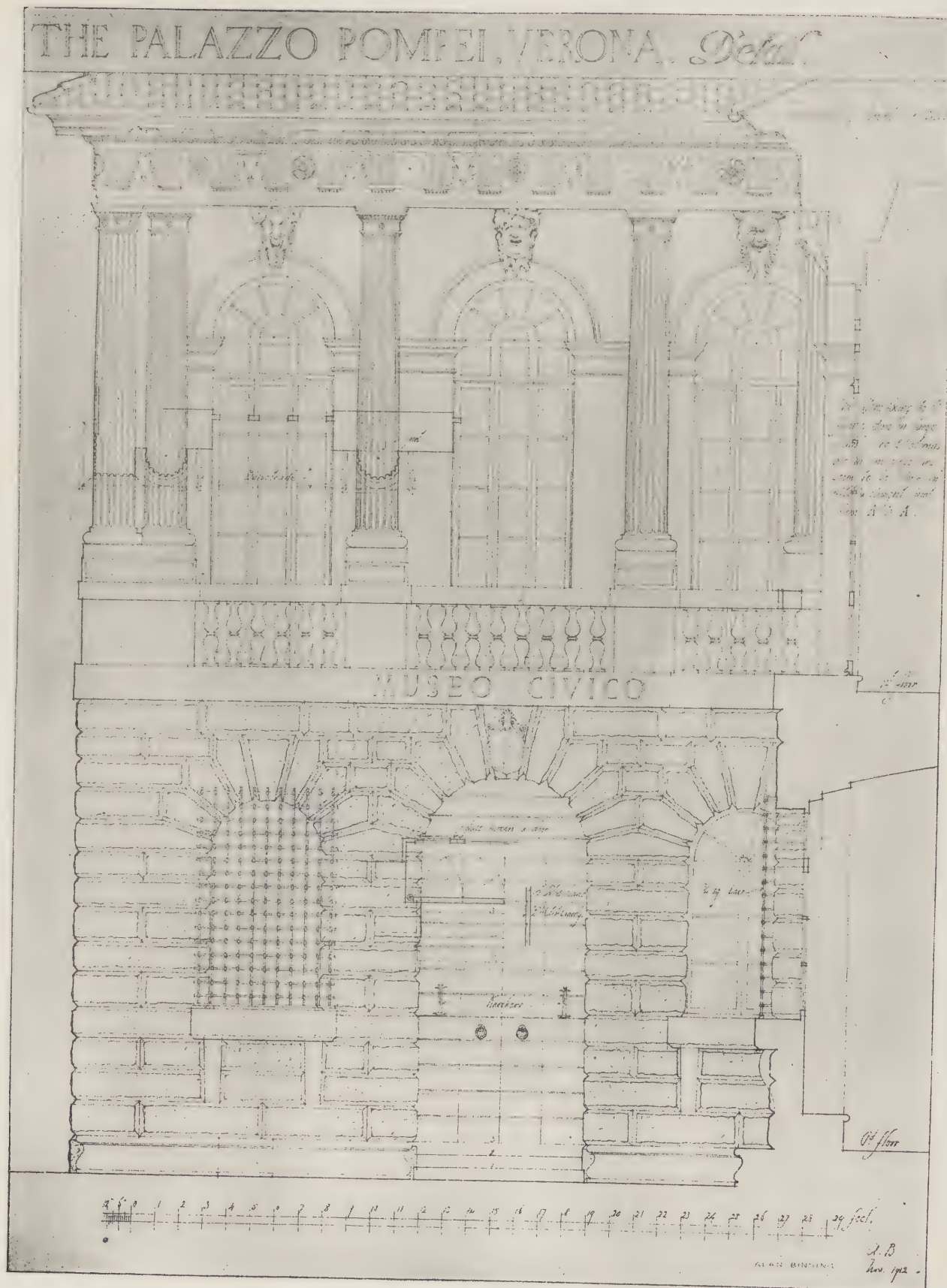
PLATE V

VOLUME VII

NUMBER 2

*A pen and ink sketch by James Macgregor of Stokesay Castle, Shropshire, England, built A. D. 1115. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*





MEASURED DRAWING OF THE PALAZZO POMPEI, VERONA, BY ALAN BINNING



PLATE VI

VOLUME VII

NUMBER 2

*A detail of the elevation of The Palazzo Pompei in Verona, Italy; Sanmicheli, Architect, (circa 1530). Measured and drawn in pencil by Alan Binning. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*







PLATE VII

VOLUME VII

NUMBER 2

*A detail of the Screen, Holberton Church, Devonshire, England, built during the 15th Century. Measured and drawn in pencil by James Macgregor. This plate is included in the first quarterly part of "The Architectural Association Sketch Book," published in London in 1913.*





"Achievement"—Figure in Frieze of Knickerbocker Memorial, Troy, N. Y. A. A. Weinman, Sculptor

## THE FORTY-FIRST ANNUAL EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

HELD AT THE AMERICAN FINE ARTS SOCIETY BUILDING  
JANUARY 31st TO FEBRUARY 28 (INCLUSIVE) 1926

PREPARATIONS FOR THE forty-first Annual Exhibition of THE ARCHITECTURAL LEAGUE of New York in the Fine Arts Building, 215 West 57th Street, were well advanced when this issue of PENCIL POINTS went to press, and we are fortunate in being able to show a few of the individual exhibits on the following pages.

It will be remembered that last year's exhibition was held in conjunction with that of The American Institute of Architects at the Exposition of Architecture and the Allied Arts in the Grand Central Palace, and was a radical departure from the usual custom of holding the exhibition as an annual League affair in its own quarters. The annual exhibitions have furnished for many years an interesting record of architectural development in this country, comprising not only works of architecture, but also of the allied arts. They have served to emphasize the close relationship between the architect and members of the related professions. This year's exhibition presents many features which make an appeal to architect, sculptor, mural painter, craftsman and layman alike, and is sufficiently varied in interest to have a popular appeal. The exhibits consist of drawings and models of proposed and executed work in structural, decorative and landscape architecture; sketches and finished examples of decorative painting; sketches, models and finished examples of decorative and monumental sculpture; drawings, models

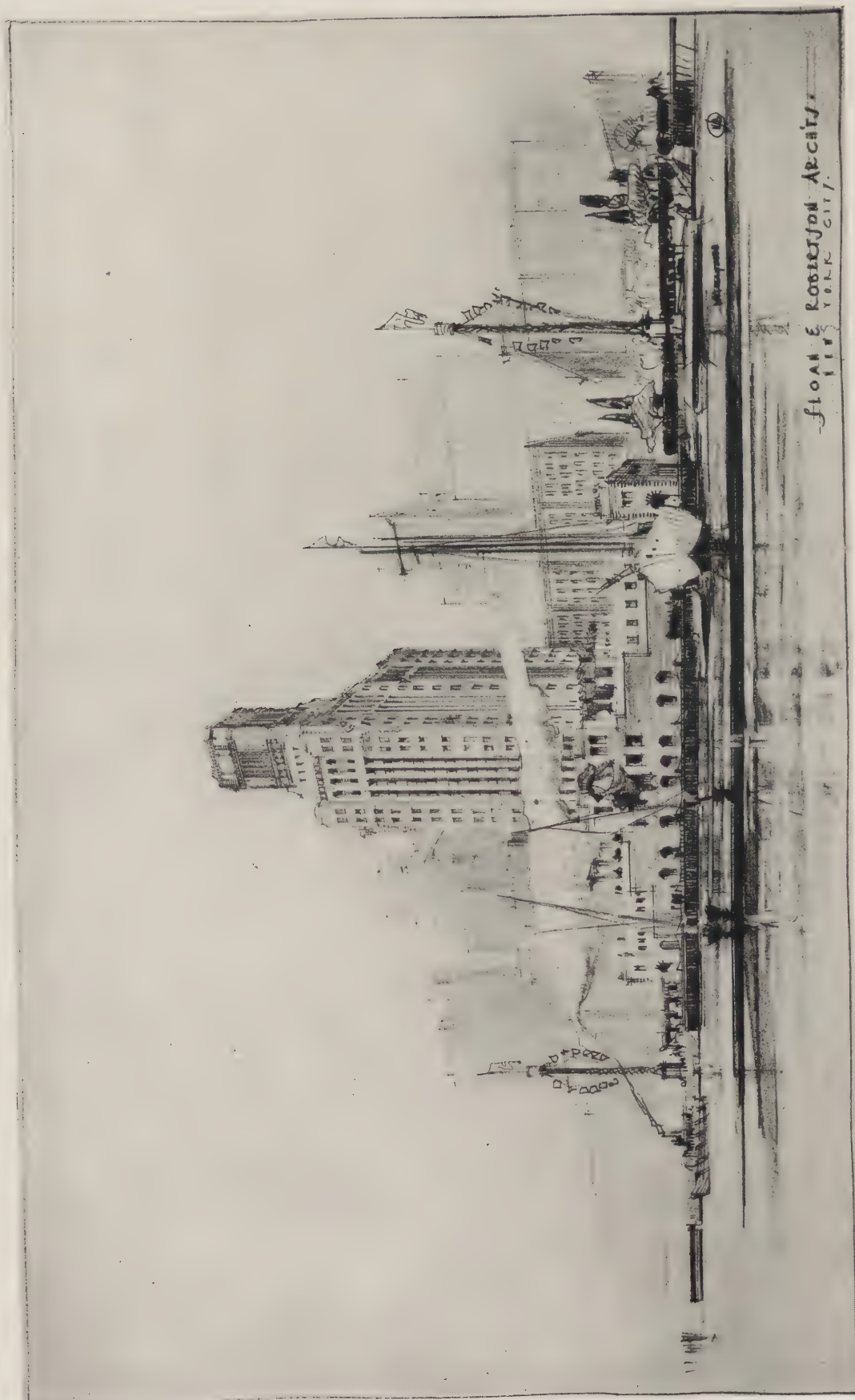
and executed work in the decorative arts; and photographs of executed work in all of the above branches.

Medals of honor are offered in architecture, decorative painting, sculpture, landscape architecture, and design and craftsmanship in native industrial art.

An added attraction of this year's League Exhibition is the work which has been brought over from the *Exposition Internationale des Arts Decoratifs et Industriels Modernes*, recently held in Paris through the courtesy of the *Association Française*, an association founded under the auspices and patronage of the Minister of Foreign Affairs and the Minister of Public Instruction and of the Fine Arts. The exhibition embraces more than five hundred selected works of the best French architects and decorators and is characteristic of the Paris Exposition which was considered by many to have struck a new and radical note.

The French exhibits consist of drawings and photographs, largely devoted to interior decoration. The subjects range in variety from colonial villas in Algiers to Parisian pavilions. M. Bernard Haubold, architect-in-chief of the French Government and member of the Society of Modern Architects, shows studies for different types of rural habitations in the devastated regions of France and types of furniture suited to these houses. M. Jauines has contributed the beautiful tapestries from the Salon of





EAST RIVER TERMINUS FOR MONTAUK, L. I., DEVELOPMENT—SLOAN & ROBERTSON, ARCHITECTS

*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*





HAVANA HEADQUARTERS OF THE NATIONAL CITY BANK OF NEW YORK, WALKER & GILLETTE, ARCHITECTS  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*





PANELS OF REREDOS IN ST. MARTIN'S CHURCH, PROVIDENCE, R. I.  
BERTRAM GROSVENOR GOODHUE, ARCHITECT—HILDRETH MEIRE, ARTIST.



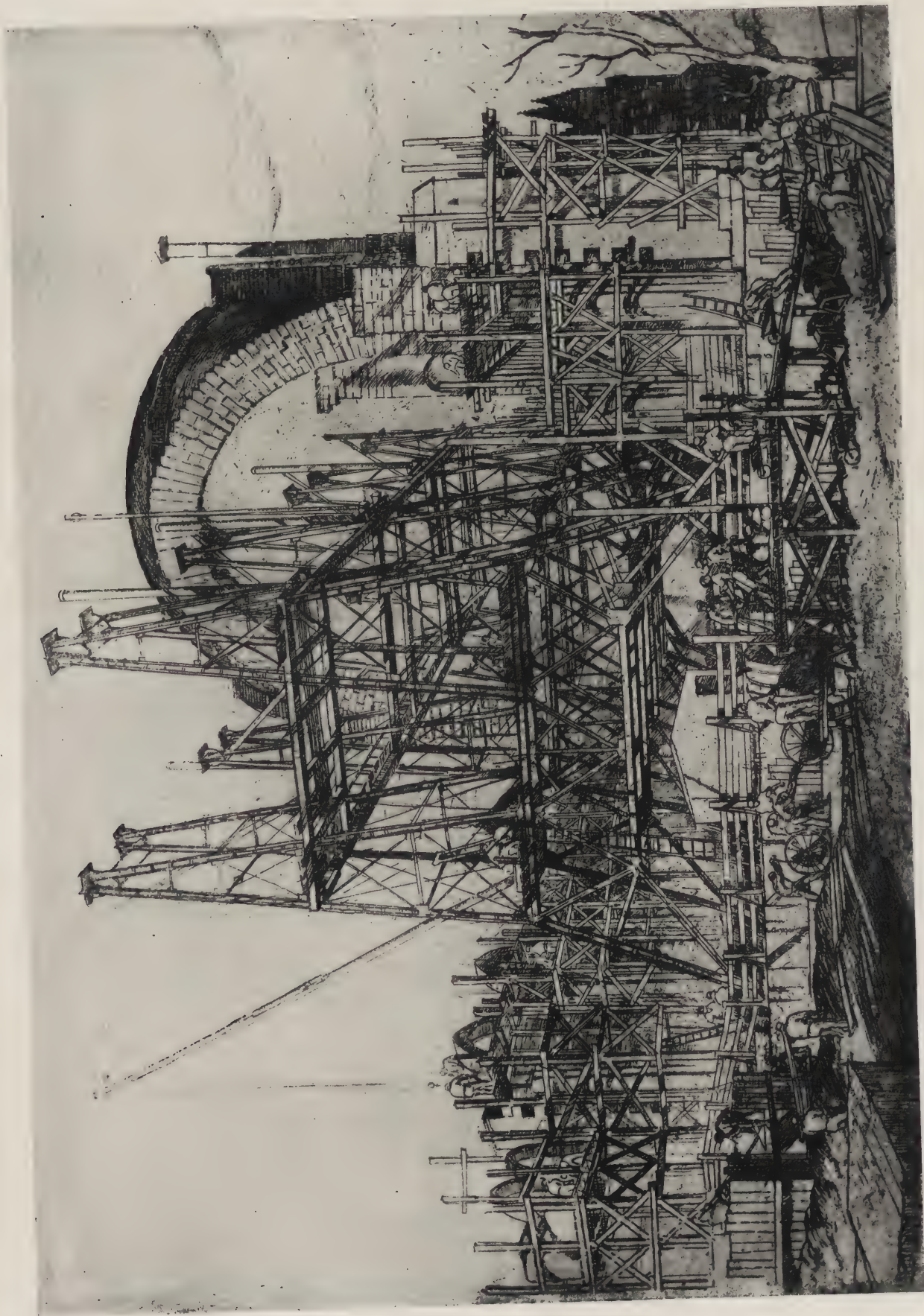
EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK



"RENAISSANCE"

GROUP BY LAWRENCE F. STEVENS, FELLOW IN SCULPTURE, AMERICAN ACADEMY IN ROME  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*





"BUILDING A CATHEDRAL" (ST. JOHN THE DIVINE). ETCHING BY ARTHUR COVEY  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*

*Size of Plate 20" x 28"*





CLUB HOUSE—PASA BONITA DEVELOPMENT AT PUNTA GORDA, FLORIDA—KENNETH M. MURCHISON, ARCHITECT  
*Exhibit at the 41st Annual Exhibition of The Architectural League of New York*





"DUSK"—OVERMANTEL DESIGN BY CHARLES LIVINGSTON BULL



ORNAMENTAL GATE DESIGNED BY S. DE KOSENKA



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





RENDERING BY BIRCH BURDETTE LONG

*Size of Original 16½" x 24¼"*

*The Cathedral Church of Saint Cecilia, Albi, France*





SKETCH BY FRANCIS KEALLY FOR ALTERATION TO VICTORIAN HOUSE AT SPARKHILL, N. Y.

*Size of Original in Mat 28" x 18"*  
*Aymar Embury II, Architect.*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR



# THE CONTRACT SET OF WORKING DRAWINGS FOR A SMALL SIX ROOM HOUSE

*Walter J. Thies, Designer & Draftsman*

THE PROBLEMS ENCOUNTERED IN designing the modern small house and the necessary working drawings for its erection involve a larger expenditure of time and efforts for the remuneration received than perhaps any other type of building. The medium cost house, however, constitutes the larger portion of the practice of the average architect throughout the country, and in most cases it is work which one cannot afford to refuse.

This type of practice requires the exercise of good judgment to make the right kind of drawings for the purpose. The cost of the house does not bear the right relation to the cost to the architect in time and money for the preparation of the drawings and, in order to obtain a profit from this class of work, it is necessary to determine just how many or how few drawings it is absolutely necessary to furnish in or-

der to give the contractor exactly the information he needs to make an intelligent and accurate estimate and to build from.

The ideal set of contract working drawings for a small house is that which is condensed and yet so clear and readable that it is necessary only to hand it over to the builder and tell him to build the house.

A set of working drawings for the six room house illustrated below is shown on the following pages. A study of these drawings will show that it is possible to get the "personal touch" of the draftsman plus most complete, clear and easily read information which is of practical value for the builder, and to do it with only six sheets of drawings.

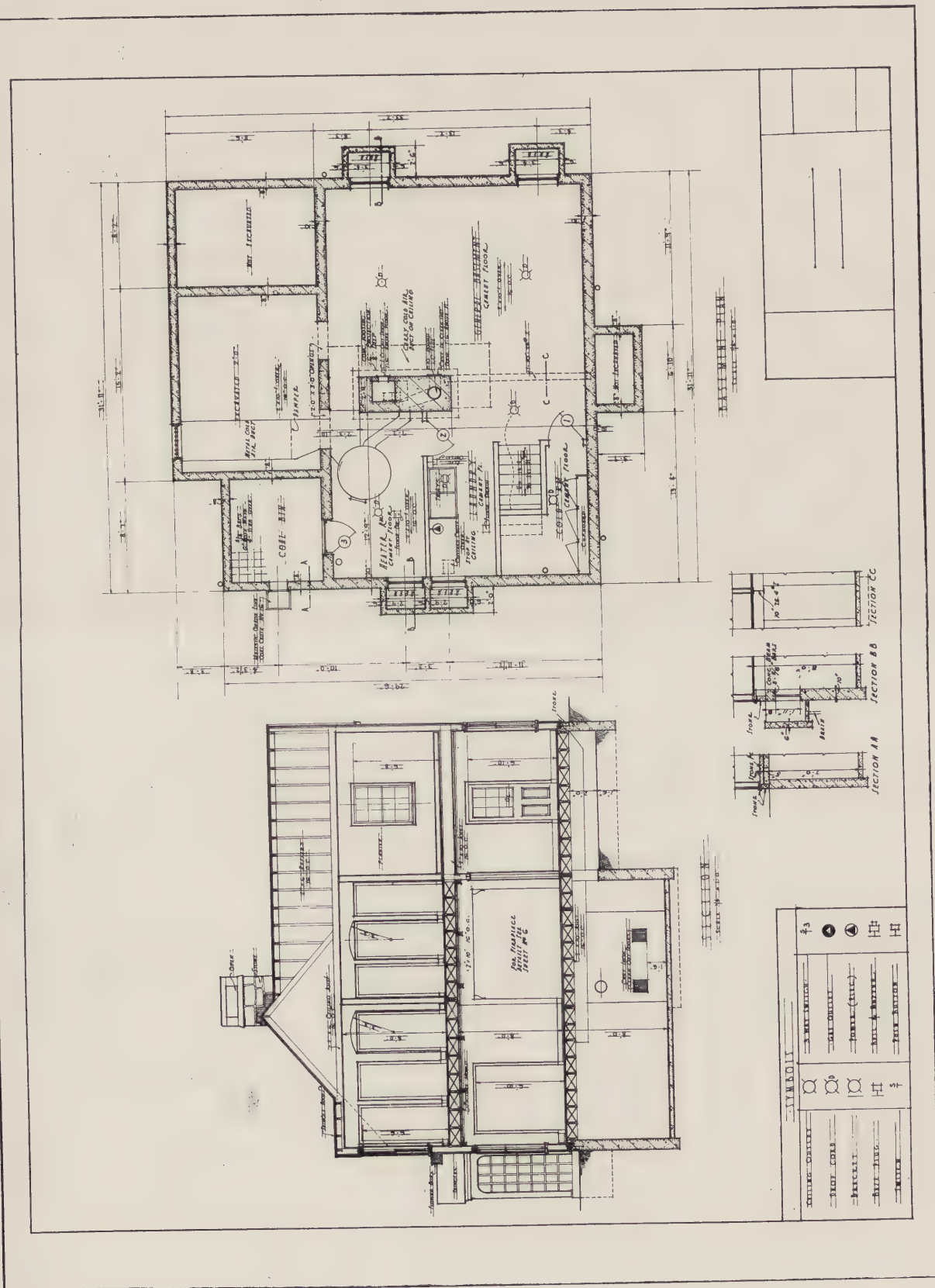
This set of working drawings was traced in ink on cloth. A uniform size of 18" x 24" was established for all the sheets by placing the first and sec-



PEN & INK PERSPECTIVE OF SMALL HOUSE DESIGNED BY WALTER J. THIES



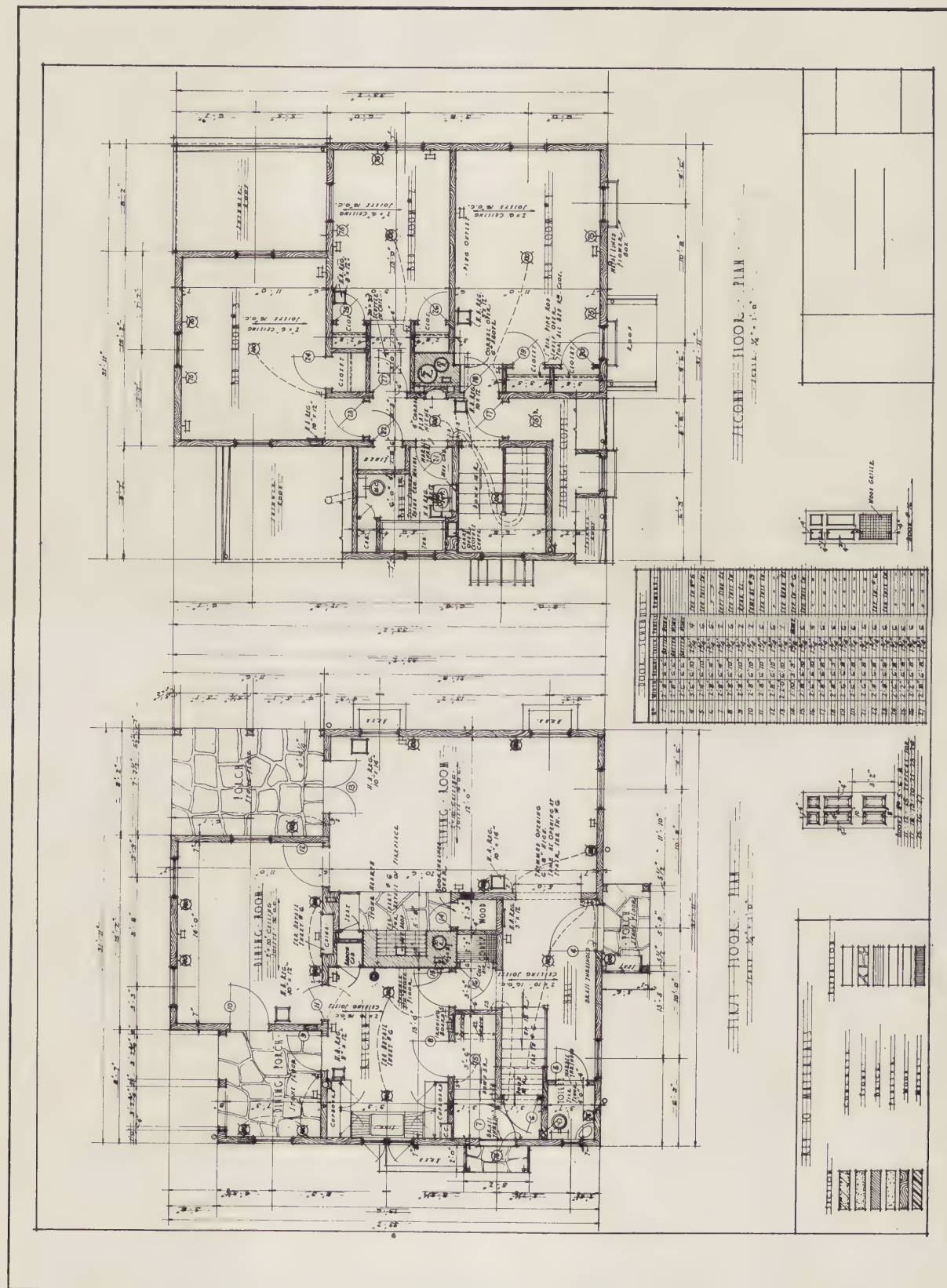
# PENCIL POINTS



SHEET ONE—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.



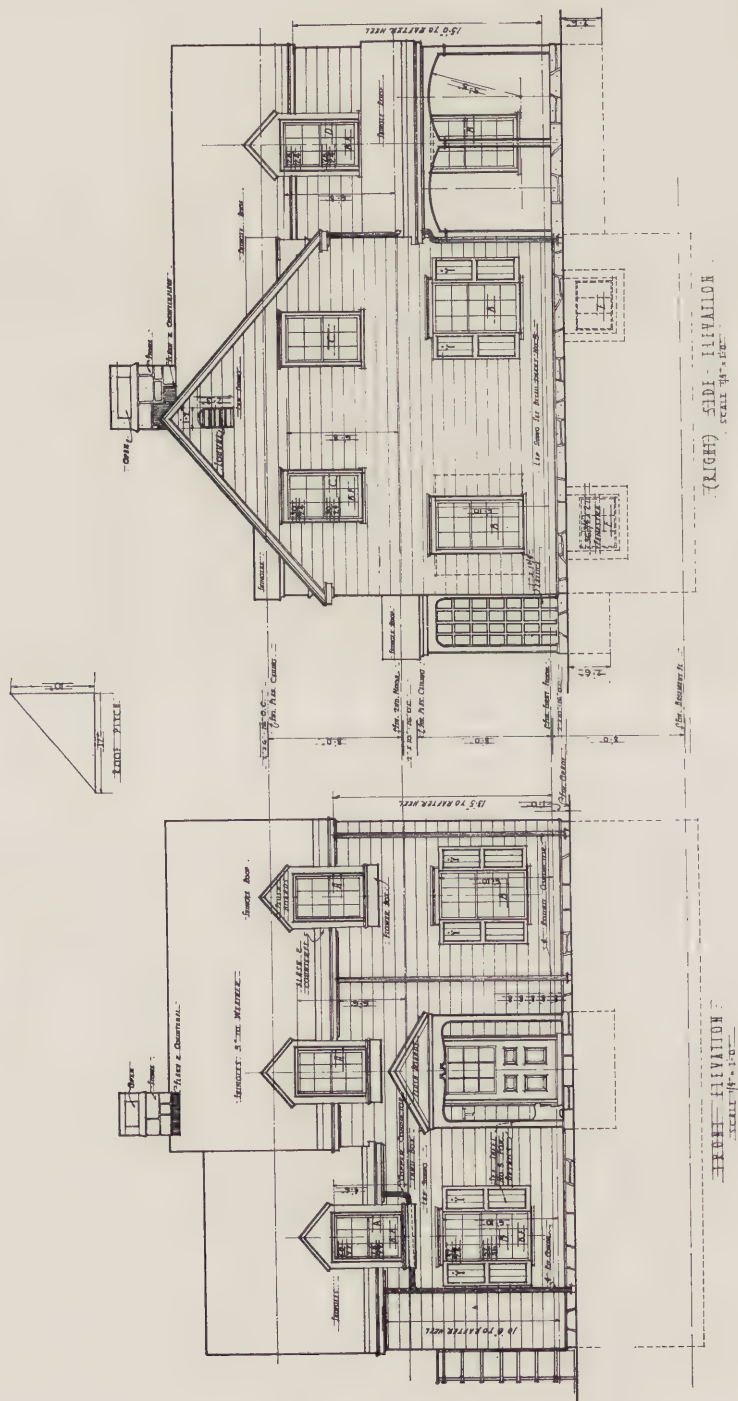
# THE CONTRACT SET OF WORKING DRAWINGS



SHEET TWO—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.

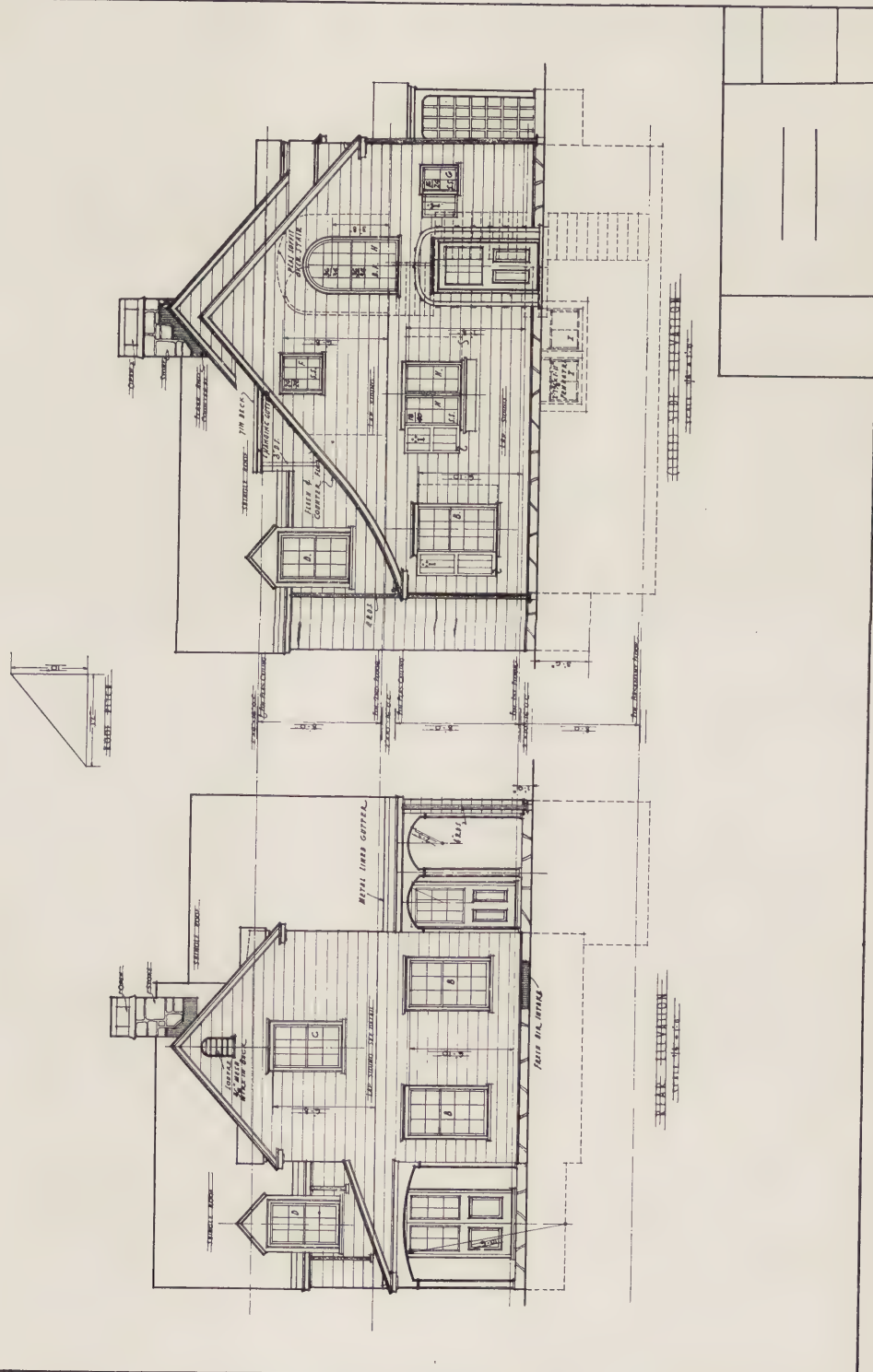


# PENCIL POINTS





THE CONTRACT SET OF WORKING DRAWINGS



SHEET FOUR—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.

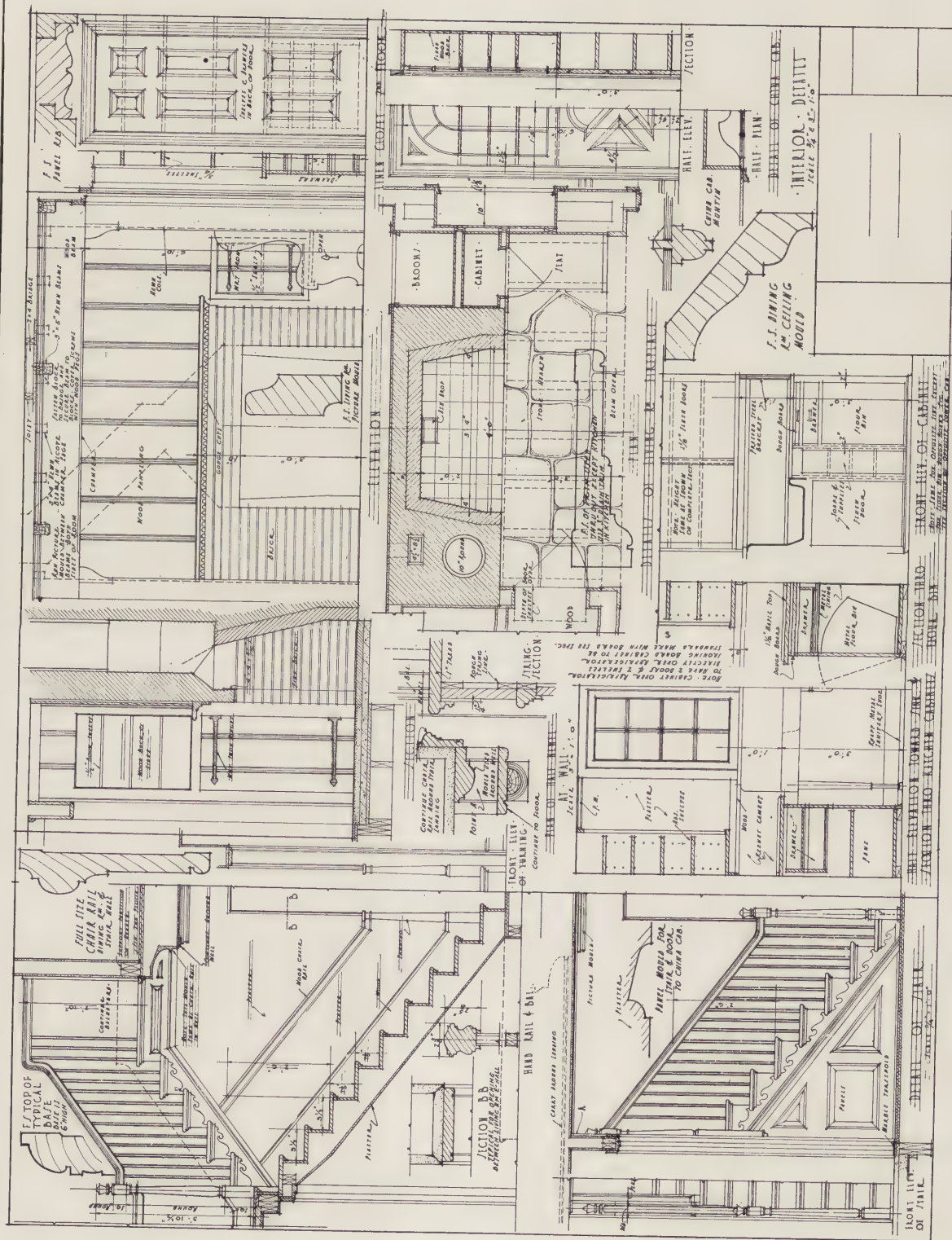


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# THE CONTRACT SET OF WORKING DRAWINGS



SHEET SIX—WORKING DRAWINGS FOR A SMALL HOUSE—Walter J. Thies, Designer & Draftsman.

## PENCIL POINTS

ond floor plans, drawn at  $\frac{1}{4}$  inch scale, on one sheet and allowing for border lines, binding edge and space for the title and then taking one dimension of the sheet, that of a standard width of tracing cloth. The two floor plans on one sheet established a size which was adequate for the  $\frac{3}{4}$  inch scale drawings.

The drawings were not put on cloth until the work was thoroughly studied and everything essential drawn in pencil on stretched manila paper. The indications of material were drawn on the cloth only.

Every step in the process of making the cloth original was dictated by the effect it would have in the print. The print is what the contractor gets and the print is what the house is built by. The use of pure black ink for the silhouette representing the plaster thickness and the outside walls makes a strong black line on the cloth and the corresponding heavy white line on the print helping to clear up the plan and section for easy reading. Diluted ink in various thickness of line has been used for the indication of material in plan and section.

The names of the rooms, figures and notes have been lettered on the drawings in a compact and unaffected manner so that they are legible and clear. A vast amount of necessary information may be given if the arrangement of the data is well thought out. In the drawings we are considering the door swings, direction and size of ceiling joists, soil pipes, registers, floor and base plugs, ceiling and bracket outlets, switches, etc., together with many clearly worded notes are included in a very small area. The dimension lines are not confused with the wiring nor do the notes interfere with the readability of the plans. There have been no unnecessary repetitions in the notes. Each door has been given a number and the width, height, thickness and design shown by a "Door Schedule" on Sheet Two. The glass sizes are given on the elevations for the window panes so that the mill man can work out his sash from stock sizes of material and maintain the scale of the design.

Intelligent estimates can be procured only when complete information regarding the details are in-

cluded in the contract drawings. The practice of including the three quarter inch scale drawings of the main exterior and interior features with full size detail of typical trim gives confidence to the contractors and mills in estimating, and results in lower estimates than could be obtained where the information is less complete.

These drawings give clearly the essential information that is wanted by the builder and in such a way that even the most poorly trained mechanic can understand the intent of the designer.

Details of construction vary in different localities so there are bound to be differences of opinion as to the best practice in construction for the small house. This also affects the method of figuring the drawings. The draftsman making these plans cannot be criticized for giving too many figures. He has worked from finished dimensions instead of from rough to rough and he has figured from center to center of openings on the outside and inside. The drawings scale with the figures.

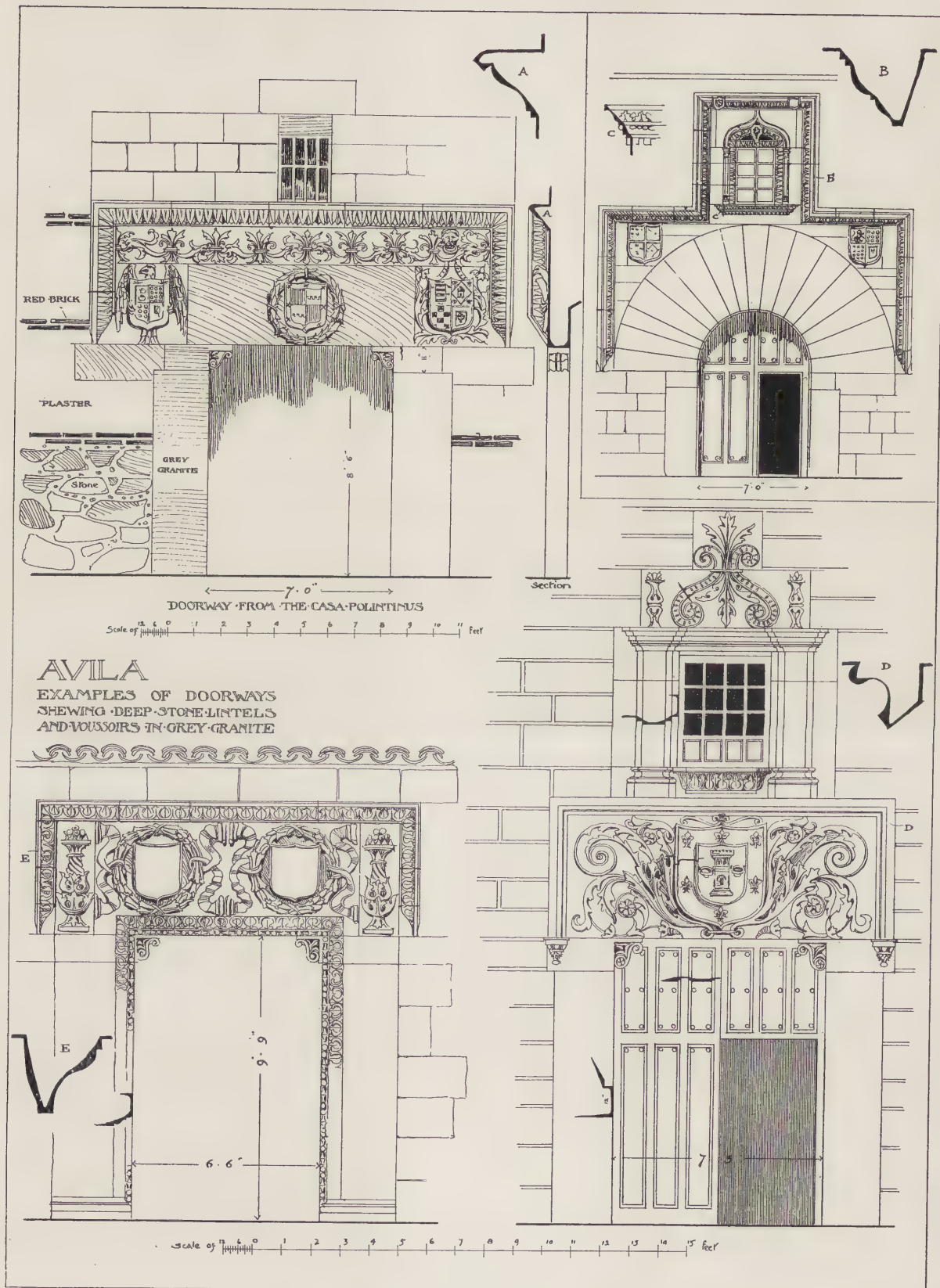
The use of a "key of materials" for both section and elevation is a time saver in the long run, especially if it is necessary to issue many sets of blue prints to owner and contractors.

The  $\frac{3}{4}$ -inch details shown on Sheets Five and Six were studied in full on tracing paper and later arranged logically on the sheet, tracing only that portion which would give the builder what he needed.

This set of contract working drawings show what is possible in condensing the work without losing clearness and to detail fully the complete house on six sheets of drawings which are intelligible to owner and contractor alike.

One of the best rules to follow in making any set of working drawings is the old and obvious one, but one that is often violated—"Never leave out anything that is necessary, but never show anything to complicate the drawing—anything that does not bear direct relation to the prime object of the documents—the building."





RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN

A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PLATE VIII

VOLUME VII

NUMBER 2

*These examples of doorways are to be found in the ancient city of Avila, Spain. The material is gray granite, of which many of the northern cities of Spain are built, and in breaking away from the usual classical forms the local architect shows he understood the material he was using. Inside all these entrances is a large square vestibule peculiar to Spanish houses. One of the doorways forms an entrance to the Casa de Polentinos, approached from a street at the back of the house. The large deep lintels in one piece are a noticeable feature. There are many other specimens in Avila and Salamanca of the round arched doorway similar to the example shown on the top of the right hand corner of the plate.*



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### FEBRUARY, 1926

#### THE BEAUX ARTS BALL

THE BEAUX ARTS BALL "A Fête in the Gardens of Versailles," was held at the Hotel Astor, New York, on the night of January 29th. We print herewith a description of the affair:

The Ball Room of the Astor was for one night transformed by enchantment into the semblance of one of the *bosquets* of the Park of Versailles, that royal garden which Le Notre created for his great master, Louis XIV.

At the principal entrance was a grille through which one observed an alley of verdure with a terminal statue at its extremity. To the right of this alley was the north ball room, skillfully done over with painted scenery to represent the Hameau of Marie Antoinette, a chronological anachronism permissible in such imaginative creations as this. To the left of the alley was the entrance to the grand ball room. Here in the centre was a fountain with a jet thirty-five feet in height flanked by great marble vases between which were flights of steps up to the level of the fountain basin and to the level of the stage beyond. From the stage level one ascended a second flight of stairs leading up to the royal loge, or tribune, at the level of the balcony where the King and his Court received the homage of the dignitaries and viewed the spectacles arranged in their honor. Above the royal loge was a great baldaquin surmounted by a crown from which depended curtains of red and gold damask with a central panel forming the background of the throne in blue and silver and the white lilies of France. The railing of the tribune was decorated with the royal coats of arms, interspersed with the familiar interlaced initials of the King, all carried out in the red and gold dominant relieved with blue and silver. The balustrades of the stairway were done in the same manner, and a sumptuous carpet covered the stage and steps. Completely around the ball room was a hedge concealing a raised terrace upon which tables were placed for the accommodation of the guests: Soft green curtains as backgrounds, and blue lights in the ceilings lent an air of shadowy mystery to these spaces as well as to the balcony loges above, which were treated in the same manner.

The columns at the sides and ends of the ball room and the arched ceiling were hung with drapes of soft green netting-like material to simulate the overhanging foliage of the famous chestnut trees of the *bosquets* of Versailles. Hundreds of spherical yellow lanterns were cunningly concealed amidst the foliage and soft blue moonlight filtered down from above to complete the picture. The fountain, the stairs of approach, the stage, and tribune were lighted with the degree of brilliancy required for the dramatic portion of the entertainment. Leaving this scene of mystery

and splendor one passed under the royal tribune to the south ball room, which was treated in similar fashion to the grand ball room but on a more intimate scale. Verdure arched recesses along the walls constituted the system of the design with tables in each and with the blue lighting as described for the grand ball room. At intervals were clipped masses of foliage serving as backgrounds for sculptured figures on fountains. The ceiling was draped and festooned in green net and the yellow lanterns completed the picture. Added to this conception was the pageant of costumes which, animated by the music of the period, created a scene of new and magical beauty.

It was the birthday of the King, Louis XIV, *Le Roi Soleil*, and the great nobles of France, and princes and ambassadors from the Courts of Europe came to pay him honor.

In one of the *bosquets* of the Park of Versailles a sumptuous tribune in the imperial colors of red and gold was erected for the occasion, with a stage for the tableaux and dances which were presented for the King's entertainment and that of his guests. The stage and tribune were approached by a great stairway, which the various dignitaries, to whom the King gave audience, ascended. Flanking the stairs were the Guards of Honor bearing the great silken standards, emblems of the King's victorious armies.

The Heralds announced the arrival of the King and his Court.

In a stately procession the royal personages approached and ascended the great stairs to the tribune. The King in his robes of state, surrounded by his guard of honor and attended by his chamberlains, led the way. His Queen, Maria Teresa, with her ladies in waiting, followed him, and she in turn was followed by the Princes and Princesses of the blood, the Grand Dauphin, Monseigneur; the Duke and Duchess of Orleans, Monsieur and Madame Mademoiselle; the young Duke and Duchess of Bergundy. Following them came the King's favorites in the order of their succession, Mademoiselle de la Vallière, Madame de Montespan, Mademoiselle de Fontanges and Madame de Maintenon.

The King and his Court proceeded to their places in the royal tribune, presenting a scene of the utmost splendor. Upon the enthronement of the King and the Queen, other nobles and dignitaries of the period, in a long procession, ascended the stair to the tribune to express their homage and fidelity to him on this great occasion. They passed in front of the King and Queen to the right and to the left and returned to the loges reserved for them to witness the continuance of the spectacle. Among them were the great Cardinals de Borillon and de Rohan, his minister Colbert, his great Captain Louis de Bourbon, Prince of Condé, the great literary men of his reign, Corneille, Moliere, Racine, his architects, Le Van, Le Notre, Mansart, the painters Lebrun and Puget, the sculptor Coysevox and his son Coustou, all of whom so signally contributed to the glory of his reign.

Upon the conclusion of this procession the King gave the signal for the reception of the Ambassadors from foreign Courts who sought his powerful alliance. The heralds announced the arrival of the Embassy from Genoa, the Doge Lescaro and his senators, Lomelino, Garebardo, Du-vazzo, and Selvago. They brought gifts to the King in the person of a beautiful slave bound with links of heavy gold. This audience concluded, followed the reception of the three Ambassadors from Siam with four Siamese noblemen in their train bearing precious gifts of ivory and gold.

The African King of Arda and his suite were next presented to the King. They brought with them gifts of emeralds and a black dwarf for the Queen.

Finally came the Ambassador from the Court of Persia, Mehemet Riza Bog, with gifts of magnificent greyhounds which he presented to the King.

The King signified the termination of the audiences and directed that the Court be entertained by the performance of the ballet on the stage before him. To the music of strings and flutes the members of the royal ballet appeared and stately Pavaues and Minuets of the period were succeeded by interludes of pantomime with a final apotheosis reflecting the glories of his reign, in which the entire corps de ballet participated.

The King rose, indicating the termination of the spectacle, and the entire Court retired in a recessional which was the signal for the formal opening of the Ball.

HOWARD GREENLEY,

JAMES M. HEWLETT,

Committee on Production and Decorations.





LOUIS CHAPPELL NEWHALL

LOUIS CHAPPELL NEWHALL died suddenly on December 26th, 1925, following an operation for appendicitis.

Mr. Newhall was widely known, and his death will be deeply deplored. His personality and zestful interests won him many friends, but that which endeared him most to all was his keen interest in the young men of his profession and his constant desire to be of service to them. It was in this spirit that he gave the Boston Architectural Club its present form, and he succeeded in creating an institution which, by reason of its social activities and educational opportunities, touches at some point the professional life of every architect and draftsman in Boston. It is perhaps the means by which he has best expressed himself.

Mr. Newhall was born in Malden, Mass., on April 17, 1869. He was graduated from the Malden High School, and for a short time studied at Tufts College for the ministry, but finally entered the Massachusetts Institute of Technology as a student of architecture. After leaving school he worked for some years in the offices of J. Merrill Brown, J. William Beal, and A. H. Bowditch, in Boston, until he won the Rotch Travelling Scholarship in 1898. He was the fifteenth holder of this scholarship, and his appreciation of its benefits was a great influence in his later life. In 1901, soon after his return from Europe, he formed a partnership with Albert H. Blevins under the firm name of Newhall & Blevins, with offices at 9 Park Street. This firm has been an active one and has done much public and private work in Boston and vicinity.

Mr. Newhall became President of the Boston Architectural Club in 1905 and continued in that office until 1915, and from that time until his death was Treasurer of the Club. It was during these twenty years of service that his influence and ideas were paramount. He established the Club in its present quarters, inaugurated its system of classes, and watched over its finances. He was also a very active member of many committees of the Boston Society of Architects, especially those which have to do with education and the conduct of the Rotch Travelling Scholarship. He was a Fellow of the American Institute of Architects, and for many years was the representative in Boston of the Society of Beaux Arts Architects.

## THE NEW YORK ARCHITECTURAL CLUB, INC.

OUR CLUB HAS ACQUIRED A HOME. That is to say, we are presuming and hoping that when this appears in print the deal will have been completed. At this writing, preliminary negotiations have been entered into, and advanced to the point that, barring the possibility of the eleventh hour obstacle, that usually always hovers over all business transactions, makes us feel confident that the matter is as good as clinched.

As we mentioned in the January number, the Board of Directors appointed a committee to locate and establish an atelier in the Grand Central Zone, to accommodate not over 50 students, as the first step in the club's program of activities. The committee has been very fortunate in having been able to find a large loft in the very heart of the desired location, consisting of 4,000 square feet, adjacent to the now famous Bowery Bank Bldg., directly opposite the Commodore Hotel, and diagonally opposite the Grand Central Station. In preliminary sketch plan it has been decided to provide comfortable working space for an atelier of 35 to 40 students, a life model class for about 20 students, library and reception room, club lounge, a meeting room that can also be used for dances, etc.

It is a modest beginning, we will admit, but it is on a sound basis, and what is vastly more important is that it provides the club with headquarters to work from. Besides, there is no reason why the great oaks from little acorns proverb should not hold in this instance. As a matter of fact, things are shaping out surprisingly close along the program mapped out by the club. We have not by any means given up the idea of going into it on the large scale previously outlined. The scope and ambitions of the club to be fairly in keeping with the requirements of the prospective membership will necessarily make it quite a large project. The membership at present is around the 600 mark, and the Board of Directors is considering the closing of charter membership enrollments without initiation fee in the very near future, and the placing of an initiation fee of between \$10 and \$25 on each new club membership application from then on. Therefore it behooves all those who have been deferring and lagging behind to send in their applications without delay. It will save them money to do so.

The atelier, as we have stated before, will be run in conjunction with the Beaux Arts Institute of Design, in the usual way, under the patronage of one of the best architects in the city, who's name will probably be announced in the next magazine issue. The atelier membership is only about three-quarters filled at present writing as the committee has found it advisable to use discrimination in the acceptance of applicants. It is possible that there may still be some vacancies when this is issued, so that those who had figured on joining had better get in touch with the writer at once on this matter.

### *Architectural Bowling League Division*

The Architectural Bowling League is now about three-quarters of the way through the schedule for five-man teams, and going stronger than ever, and the "dopesters" are already laying wagers as to the winners. However, the competition is very keen, and the unusual happens so often in this fascinating game, that no sooner a forecast is ventured by someone, along comes a team with a surprise party up their sleeve and upsets all the dope. All of which makes it more interesting. Rex Read of the Cass Gilbert team had a high individual score of 221 for so long that it looked as if it would stand till the end, but along came King of the Guilbert & Betelle office the other night and rolled 232. However, it is our opinion that before the tournament is over someone will roll up a score of about 270.

The Architects Samples Corporation of this city has donated a very handsome silver cup about 24 inches high, which will be known as the Architects' Samples Corporation, Individual Championship Trophy. Each year the winner's name will be engraved on it, and the winner presented with



a large silver tray. The trophy itself will be given to the one who wins it three times irrespective of sequence. We hope to have a picture of it in the next issue, together with the other trophies and medals.

Thursday, January 14, was again "Ladies' Night" at the alleys, and about forty members of the fair sex lent class to the occasion. The ladies had a very pleasant evening, bowling on the three alleys reserved exclusively for their pleasure for the evening.

The annual ball of the Bowling League will be held on Wednesday evening, March 10th, in the Palm Garden, 58th St. and Lexington Avenue, and a very large gathering is expected, judging by the advance sale of tickets. But we have plenty of tickets left, and the hall can easily accommodate 5,000 people.

HENRY SASCH, Secretary,  
c/o Donn Barber,  
101 Park Avenue, N. Y. City.

#### THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary of the American Academy in Rome, from Frank P. Fairbanks, Professor in Charge, School of Fine Arts, we quote the following:

"The residential facilities of the Academy are now full. Seven visiting architects are working in the drafting space provided by us for such scholarship holders.

"Our own men are all busy and there is a fine atmosphere of fellowship throughout the Academy.

"George Fraser, first year architect, is hoping to obtain permission from Prof. Bartoccini, Director of the National Museum in Tripoli, to make a restoration of a "terme" in Leptis Magna, in collaboration with Charles A. Robinson of the Classical School. If Fraser and Robinson can obtain this grant to work on this famous bath, they will go down to Africa after the collaboration competition and stay at the site until the complete material is obtained for a presentation of the reconstruction.

"Michael Mueller, the first year painter, has completed the preliminary cartoons for a composition of two figures and Walker Hancock, first year sculptor, is finally established in his own studio. Hancock had to accommodate himself to sculptor Stevens' departure from the Academy, which took place about the middle of the month. The casting of Stevens' final group occupies considerable time, while the packing of it for shipment to New York only added to the delay in vacating the studio.

"Finley and Bradford, second and third year painters, are busy, the former with a figure composition which promises to have a fine decorative feeling. Camden, second year sculptor, has a relief and a life sized figure in progress. He has finished a head in marble, modelled another for stone and composed a group, at one half scale, of a mother and child. Alvin Meyer, senior sculptor, is hard at work on his Greek well head.

"Douglas, second year architect has completed all his drawings for his restoration of the Temple of Dougga and made a beautiful rendering of a garden wall of the Knights of Malta.

"Deam, senior architect, is finishing the drawing of a fountain in the Piazza Mastai. He hopes to obtain the rare privilege of measuring the Villa Lante at Bagnaia.

"Newton, landscape architect, has just finished a planting layout of the garden theatre at the Villa Glori, La Lizza, Siena, to accompany his plan made last year. He is working on a planting plan of the Villa Medici at Fiesole."

#### LECTURES FOR UNIVERSITY OF FLORIDA

Special lectures by prominent architects will be provided by the Florida Chapter of the American Institute of Architects, at their expense, as a gift to the new School of Architecture at the University of Florida.

At a meeting in Jacksonville the Florida Chapter voted unanimously to set aside a portion of its funds for the purpose of defraying the expense of bringing to Gainesville men high in the profession. The students in architecture will thereby have the opportunity of hearing and meeting the men who are directing the architectural development of Florida today and who will be the employers of the men now enrolled in the architectural courses.

This act of the Florida Chapter is additional evidence of the support that the profession is giving to the new School of Architecture.



BURT LESLIE FENNER

BURT LESLIE FENNER died suddenly on January 24th, at his home, Croton-on-Hudson, N. Y. For the past twenty years he had been a member of the firm of McKim, Mead & White, Architects.

Mr. Fenner was born in Rochester, N. Y., September 5, 1869, the son of Edward B. and Margaret Virginia Fenner. He was educated at the University of Rochester and in 1911 received an honorary degree of Master of Arts from that University. He also studied at the Massachusetts Institute of Technology before starting as a draftsman in the offices of McKim, Mead & White, in 1891.

The high standing of Mr. Fenner among his associates is evidenced by his having been chosen President of the Apprenticeship Commission, created by the New York Building Congress in 1922; President of the New York Chapter of the American Institute of Architects; chairman of the committee appointed in 1922 by the Chapter and the Building Trades Employers' Association to deal with the difficult questions arising between architects and builders, and general manager of the United States Housing Corporation during the critical building situation of war times.

Mr. Fenner was a Fellow of the Brooklyn Institute of Arts and Sciences and of the American Institute of Architects. He also belonged to the American Federation of Arts, the Century Association, the University Club, the Psi Upsilon fraternity, the Sleepy Hollow Country Club, and the Cosmos Club of Washington.

#### LECTURE ON TUDOR ARCHITECTURE

AN ILLUSTRATED LECTURE ON "Tudor Architecture" will be given to a number of Chapters of the American Institute of Architects by Mr. Sydney E. Castle, R. I. B. A.

Mr. Castle, who is familiar to American architects through his pencil and pen and ink sketches, will illustrate his lecture with about sixty lantern slides, and will have with him, for inspection by his audiences, a sketch book of details covering panelling, plaster, fire-places, chimneys, doors, etc. In many instances, his talk will be followed by a general discussion.

The lecture will be given under the auspices of the Producers' Research Council, affiliated with the American Institute of Architects, as a part of their educational program. Arrangements have been made to give the lecture in Cleveland, St. Louis, Minneapolis, St. Paul, Indianapolis, Chicago, Atlanta and Philadelphia.

Definite arrangements have not as yet been completed, but it is very likely that the lecture will also be given in Boston, Knoxville, Tenn., and New York.



PENCIL SKETCH BY RUDOLPH J. NEDVED  
SANTA MARIA DELLA SALUTE FROM THE TRAGHETTO





PENCIL DRAWING BY J. A. FERNANDEZ  
CHURCH AT LISIEUX



## THE INDIANAPOLIS ARCHITECTURAL CLUB

THE ANNUAL MEETING AND BANQUET at the Hoosier Athletic Club December 8, marked the close of a successful year for the Indianapolis Architectural Club. The m  le was well attended and a good time was had by all. After the demi-tasse was served, the president called for a business session which developed into a lively one. Committee reports were read, discussed, and mostly accepted. The election of officers for the coming year was held and the following were elected:

President—Howard Hartman  
Vice President—Orval E. Williamson  
Secretary—Oliver Hackmeyer  
Treasurer—Roy Carson

Committees appointed to carry on the good work done this year are:

Current Work Committee—Macy Thompson, chairman, Ed. Clemens, Virgil Hoagland, Harold Schoen.

Membership Committee—Orval Williamson, chairman, George Wright, Wilbur Green.

Exhibition Committee—Clyde Stoughton, chairman, Herbert Stanley, Ed. James, Ed. Pierre.

Entertainment Committee—Sam Becker, chairman, Dwight Lytel, Harold Spitznagel.

Publicity Committee—Ed. Pierre, chairman, Lois McCrary.

Beaux Arts Committee—Ed. James, chairman, Orval Williamson, Dick Bishop, George Wright.

After the election, Ed. Clemens, the club's premier humorist, was called upon and he responded with a few jovial recitations. The meeting dispersed shortly afterward.

A distinctive feature of the club is the Tuesday luncheon meeting. Short talks on various subjects are presented to the members after lunch by competent speakers who know their topics.

Trips to several establishments of those connected with the profession have been made and have proved to be quite instructive as well as interesting.

The club's affiliation with the Inter-Club Council has been a means of keeping in close touch with current events and has enabled it to have a voice in promoting civic affairs.

Extensive plans are being made for future projects that the club hopes will gain for it a place of prominence in the activities of the welfare of the city. The degree of genuine enthusiasm that each member has shown for all the branches of the club promises well for a successful and profitable year to come.

## ATELIER RECTAGON OF BUFFALO

"SOMETIME BACK WE BOASTED that our Atelier was second to none and now we beg to be allowed to present our proof.

"The Atelier held its Christmas party Dec. 21, 1925, which was in itself a great success. The Atelier Rectagon syncopators appeared for the first time as one of the many surprises to the organization at large. The orchestra is composed of Roy McMurray, Anthony J. Nisita, Elmer McHenry, John Sloan and Joseph Siebert.

"Santa brought a real surprise, however, when he announced a generous subscription for a fund, establishing an annual tour of Europe for two members of the Atelier. In contrast to other traveling scholarships, this is a reward, not of merit in design but for interest and efforts displayed in promoting the real Atelier spirit (not plural). A candidate must complete at least one of the three problems scheduled on the Beaux Arts calendar and subsequently be elected by a vote of the candidates eligible for the scholarship. Each elector must present his vote in writing together with a reason for his selection. The candidate who has worked most zealously for the interests of the Atelier will be given greatest preference.

"We're there are we not? We are going to stay too. We have been encouraged further also by Edw. B. Green, Jr., of the firm of Edw. B. Green and Sons, consenting to act as patron and fill the vacancy caused by Mr. Frank Spangenberg's resignation at a very crucial point in our history."

## DETROIT ARCHITECTURAL BOWLING LEAGUE

THE DETROIT ARCHITECTURAL BOWLING LEAGUE has passed the half way mark for the season and has received no challenges, threats, or invitations from any other architectural league. We will soon be compelled, with all becoming modesty, to claim the title of "World's Champions."

Our match-maker, J. P. Bassler, 800 Washington Blvd. Bldg., reports that he has had no mail since the first of the month (any month, in fact).

The team standings on January 18th were:

	Team	W	L	Pct.
1	Janke, Venman & Krecke	29	16	.644
2	Albert Kahn	29	16	.644
3	Malcomson & Higginbotham	28	17	.622
4	Smith, Hinchman & Co.	28	17	.622
5	Geo. D. Mason & Co.	24	21	.533
6	McGrath, Dohmen & Page	23	22	.511
7	Donaldson & Meier	22	23	.489
8	Weston & Ellington	18	27	.400
9	Van Leyen, Schilling & K.	14	31	.311
10	Simmers & Waalkes	10	35	.222

## High Scores

Jolson—228-224, Collett—201, McLaughlin—220, McArthy—201, Richardson—213, Janke—208.



WATER COLOR RENDERING BY HARRY C. WILKINSON OF OLD COURT HOUSE, WASHINGTON, D. C.  
Frank Pearson, Architect





SKETCH BY WILSON EYRE FOR SCHOOL AND DORMITORY BUILDINGS FOR THE AUGUSTINIAN FATHERS, STATEN ISLAND.

## EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK

(Continued from page 105)

Honor at the Exposition of the Decorative Modern Arts of 1925. The selections were made so that the work shown might be of genuine interest to the American observer.

With the addition of the Paris exhibits to the American works, the forty-first exhibition of The Architectural League shows two drastically different trends in modern designs. The impetus given architecture by the Architectural and Allied Arts Exposition last year has stimulated a great interest in this year's exhibition. League members are represented by some handsome exhibits. Mr. Klauder's drawings of the Temple of Learning at Pittsburgh, (some of which were illustrated in the November issue of *PENCIL POINTS*); the National City Bank of Havana, by Walker and Gillette, (shown on page 107); the series of fine drawings by Hugh Ferriss and Birch Burdette Long for the reconstruction of King Solomon's Temple, (see the November, 1925, issue of *PENCIL POINTS*); the Arlington Bridge at Washington; new photographs of John Mead Howells' and Raymond Hood's Chicago Tribune Building, together with photographs and drawings of schools, public buildings, factories and skyscrapers, churches, country houses and other edifices contemplated or in the course of construction in all parts of the United States are among the exhibits. The American Academy in Rome has contributed some excellent material—one exhibit being the group, "Renaissance," by Lawrence Stevens, shown on page 109 of this issue.

## PRIZES AWARDED IN LEHIGH PORTLAND CEMENT HOME COMPETITION

THE LEHIGH PORTLAND CEMENT HOME COMPETITION was divided into two classes: Class A, a six room two story house with one or two baths and cellar (Plans limited to 26,000 cubic feet). Class B, a five room bungalow with one bath and cellar (Plans limited to 20,000 cubic feet). The following prizes were awarded:

Grand prize, \$1,000, first prize in Class A, \$500 and honorary mention in Class B, \$50, awarded to Angus McD. McSweeney, San Francisco, Calif.

Other prizes in Class A were awarded as follows: second prize, \$300 to H. A. Surman, Detroit, Mich., third prize, \$200 to Emil Backstrom & Herbert Magoon, New York; fourth prize, \$100 to Francis Keally, New York; ten honorary mention prizes of \$50 each to Rufus A. Sherman, Upper Darby, Pa.; Charles Crombie, Detroit, Mich.; William E. Willner, New York; Shirley C. Horsley, Philadelphia, Pa.; William Rankin, New York; Amedeo Leone, Detroit, Mich.; Louis C. Rosenberg and Oliver Reagan, New York; E. M. Eskil, Sacramento, Calif.; John J. Reagan and Dan. W. Murphy, New York, and O. H. McCord, San Rafael, Calif.

Prizes in Class B were awarded as follows: First prize, \$500 to John Floyd Yewell and Harry Starr, New York; second prize, \$300 to Walter L. Moody, Santa Monica, Calif.; third prize, \$200 to Frederick H. Reimers, Oakland, Calif.; fourth prize, \$100 to James H. Holden and Harold A. Rich, Boston, Mass.; nine additional honorary mention

prizes of \$50 each to James D. Wickenden, Berkeley, Calif.; Carl C. Tallman, Auburn, N. Y.; G. Dewey Swan, New York; Fred E. Pond, Santa Cruz, Calif.; Harry L. Wagner, Kansas, Mo.; Sara Leenhouts and George F. Spinti, III, Milwaukee, Wis.; William B. Millward, Portland, Me.; William Rankin, New York; J. Pendlebury, New York.

The first and second prize designs in Class A and the first prize design in Class B will be built as demonstration "model" houses financed by the Lehigh Portland Cement Company and under the supervision of Home Owners Service Institute. Ground will be broken this week in New York and Chicago for the building of the two houses from the first prize design, Class A. The second prize, Class A, is to be built in Kansas City. The second prize house, Class A, is under construction in Birmingham, Alabama.

## PERSONALS

HARRY B. BRAINERD, ARCHITECT, has opened an office for the general practice of architecture and town, city and regional planning in association with Richard Haviland Smythe, with offices at 681 Fifth Avenue, New York.

ANTHONY J. DEPACE, ARCHITECT, has removed his offices to 6 East 46th St., New York, N. Y.

GODFREY E. LARSON, ARCHITECT, has removed his offices to 5154 N. Clark Street, Chicago, Ill.

RALPH M. HERR, ARCHITECT, has removed his offices to the Miners' Bank Bldg., Wilkes-Barre, Pa.

JACOB ESPEDAHL AND KAARE S. ESPEDAHL have formed a partnership under the firm name of Espedahl & Espedahl, Nelson Bldg., Daytona Beach, Fla.

WATERS & WILKES, ARCHITECTS, have dissolved their partnership. Mackenzie Waters will continue the practice of architecture at the same address, 96 Bloor Street, West, Toronto, Ontario.

LEANDER McCORD, ARCHITECT, has removed his office to 530 Sibley Bldg., 328 Main Street, East, Rochester, N. Y.

J. DE BRUYN KOPS, ARCHITECT, has moved to 724 Collins Ave., Miami Beach, Florida.

HORACE A. HENSON, ARCHITECT, has opened an office for the practice of architecture in the Capitol Theatre Building, St. Petersburg, Fla.

G. ADOLPH JOHNSON, ARCHITECT, has removed his office to the Duprey Building, 16 Norwich St., Worcester, Mass.

GEORGE FULTON, JR., ARCHITECT, has opened an office at 122 East 41st Street, New York.

KIESWETTER & HAMBURGER, ARCHITECTS, have dissolved their partnership. P. L. Kieswetter has opened an office at 186 Joralemon St., Brooklyn, N. Y.

ROY G. PRATT, ARCHITECT, has removed his offices to 1314 Franklin Trust Building, Philadelphia, Pa.

L. KENT MOATZ, ARCHITECT, has opened his new offices at 712 Union Trust Bldg., Cleveland, Ohio.



PENCIL POINTS



SKETCHES MADE AT SAN ANTONIO, TEXAS, BY E. M. SCFF IWETZ  
(PRIZE—Class One—January Competition)



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

SOME OF THE READERS of this department do not quite understand the precise terms of our stupendous monthly competitions for fame and ten dollar bills, so we again present the specifications, which are as follows: There is a brand new competition each month which closes on the fifteenth. All material received between the fifteenth of January and the fifteenth of February will be considered for the prizes which will be announced in the March issue.

Ten dollar prizes are offered as follows: Class 1, Sketches: any medium, any size, any subject. Etchings are eligible if treated in the manner of a sketch. Class 2, Verse: it may be serious or gay and pertaining to architecture and anything else under the sun. Class 3, Cartoons and Caricatures. Class 4, any contributions not falling in any one of the three classes above. They may be jokes, witticisms, designs for book plates, or any other type of contribution whatsoever suitable for publication in this department.

The publishers reserve the right to publish any contribution deemed worthy even though it may not win a prize, and they also reserve the right not to award prizes in any class if no contributions are received, which, in the judgment of the Editor, are of sufficient merit to warrant publication.

The prizes in the competition ending January 15th have been awarded in Class 1 to E. M. Scffiwetz, two of whose sketches are reproduced in this issue. In Class 2 to Hugo H. Zimmermann. The award in Class 3 goes to Maurice J. Glick. And in Class 4 to Clarence E. Hersh.

Even though no prize was awarded to Mr. C. F. Kimber we wish to compliment him upon the five very charming etchings submitted, two of which are reproduced in this issue.



ETCHING BY C. F. KIMBER, COLCHESTER, ENGLAND

CERTAINLY LOTS OF STRANGE THINGS happen in architects' offices and here is an account of one of the strangest. Mr. Angelo Hewetson of Alameda, Calif., sent us a subscription for PENCIL POINTS on a blank through which a bullet had passed accompanied by the following letter which tells its own story. "Dear Sirs: I must really apologize for the condition of the subscription blank which I am returning.

The fact of the matter is that one of our clients took leave of his senses and shot three of us in our office. I was the most badly damaged (excluding the marksman who is still very low) but I was able to come home last Sunday after being in the hospital 18 days. You will see by the blank that my special bullet went through it before going through me. I find PENCIL POINTS a thoroughly delightful magazine and was delighted to get my December number on Wednesday. With every good wish for Christmas and the New Year."

The clients of California, or some of them at least, must be very wild and dangerous and we print this as a warning to all architects to keep some heavy piece of furniture between themselves and their clients when they (the clients) become infuriated to the shooting point. Perhaps it is best to give way in small matters rather than let proceedings reach such a hectic stage. Evidently the lives of all architects should be heavily insured. This is a tip to the enterprising insurance solicitors in all parts of the country.

IT PAYS TO ADVERTISE! For a while we did not get any poetry around here at all. So we complained bitterly about this in our January issue and what is the result? Plenty of poetry, as might be expected!

No serious contenders for the crown of Mr. Shakespeare have appeared, but who knows what may happen at almost any moment? Maybe someone now reading these lines will become inspired to do an epic of the drafting-room which will ring down through the ages and make its author as famous as Will Shakespeare or Will Rogers, or any of the other well-known Wills. But verse for this department need be neither serious nor grand. Any kind of skitty ditty will do if it has an amusing or pungent idea wrapped up in it somewhere and has approximately the right number of feet, etc. Lots of things that cannot be expressed in a drawing can be done in rhyme and while we have no notion of turning this department into a poet's corner we are quite sure that there is lots of latent talent among our readers which should be uncovered for the amusement of us all.



ETCHING BY C. F. KIMBER, COLCHESTER, ENGLAND



## PENCIL POINTS

### THE TRIBUNE TOWER

(Prize—Class Two—January Competition)

Oh Tower of my delight,  
Soar upward into realms of light,  
And kiss the clouds.

Geyser of fretted stone,  
You rose in wondrous monotone,  
In equipoise serene.

Oft in the misty night,  
You stand in ghostly white,  
And touch the rain.

You meet the storm's embrace,  
In bridal veil of crystal lace,  
And crowned with snow.

Pillar of graven stone,  
Your mighty song alone,  
Can sway men's hearts.

You be the lodestar of our dreams,  
Whose clear effulgent beams,  
Shall pierce the night.

You mark our path to duty,  
And light the road to beauty,  
Which leads to God.

H. H. Zimmermann

### HERMAPHRODITE

(To the Shelton Hotel, New York)

A warrior by day, triumphant,  
bearing against the unseen stars  
his bandit crest:  
At night a countess  
nonchalantly wearing  
the captured constellations on her breast.

Elisabeth Coit

### MINUTE THAT SEEMS A YEAR

WITH APOLOGIES  
TO GUYA'S WILLIAMS



CARTOON BY MAURICE J. GLICKER

(Prize—Class Three—January Competition)

### WONDER WHAT AN ARCHITECT THINKS ABOUT

—By BRIGGS



CARTOON STARTED BY BRIGGS AND COMPLETED BY  
STUART WHITNEY, CLARKSBURG, VA.

### THE ENGINEER

When the front elevation is finished  
And the sketch plans are ready to boot  
When the client with eyeful and earful  
Has at last authorized you to shoot,  
When your brain child of pencil and paper  
Has a chance to become steel and stone  
Then you send for this blighter, this anger exciter  
Who turns your glad smile to a groan.

When you say you've allowed eighteen inches  
For the thickness of floor over all  
He will answer at once, "Well you must be a dunce  
And I am surprised at your gall.  
It will take at least forty inch girders,"  
Says this slide-rule and calculus hound,  
"You can't hang a building on sky hooks  
You must keep its feet on the ground."

"I will need twenty inches for columns  
Where you have allowed me but eight."  
You can see by this time, there's a reason for crime  
And why people write hymns of hate.  
So he ruins the best of your planning  
But you don't see his real cloven hoof  
'Til he cuts down the headroom in every damn bedroom  
And changes the slope of the roof.

But be calm in the face of his insults,  
Withhold your mad impulse to smite.  
Look into the matter and you'll find this chatter  
Comes somewhere near being dead right.  
After all this is but an example  
Of how on this earth we are bound  
Though we hitch to a star, to be sure that we are  
Keeping our feet on the ground.

George McNaughton

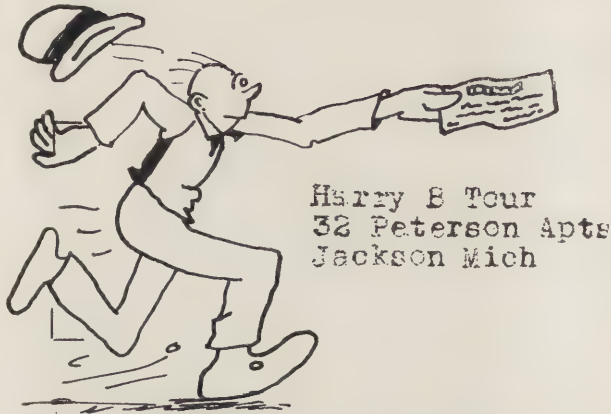
### HARDUP

I want that ten dollars,  
Please send it on quick,  
For some shirts, socks and collars,  
I want that ten dollars.  
While an inner self hollers  
This should just do the trick.  
I want that ten dollars,  
Please send it on quick.

Murray P. Corse



# HERE AND THERE AND THIS AND THAT



HARRY B. TOUR HAS THE RIGHT IDEA—HE SENT HIS  
RENEWAL RIGHT BACK

## SONNET TO A YOUNG ARCHITECT

Rail not at grey, dull days with pen and rule,  
When heavy hand doth smudge the wavering line,  
And Vision melts down in diffuse design:  
No Genius is too high to sit at school.

We others see our towers pulverize,  
And drift, like smoke, away. To few 'tis given  
To see their dreams come true this side of Heaven,  
But thou shalt dream—and bid thy dream arise!

Throw wide thy heart, then! Coin thy very soul  
And fling its gold, in turrets 'gainst the sky!  
To thee, above all men, the gods give dole  
Of fair fulfillment! Thou canst justify  
To gods and men thy dreaming—and thy goal  
Is to *dream true* where we but prophesy!

Helen A. Dooley

## AT SIASCONET

(From the sketch by J. Crawford Byers in the  
December Pencil Points)

The cottages that sit so still  
And look across the bay,  
Were once the homes of fisherfolk  
And once were new, they say;  
But now the wand of artist, Time,  
Has charmed them silver gray.

So suited to this shore, it seems,  
They grew up from the soil,  
Or else were formed by silver mists  
And not by human toil;  
Time used harsh weather by the sea  
Their somberness to foil.

With each young year there opens life,  
That winter duly closes,  
For Time keeps youth within his heart,  
Although so stern he poses;  
Lo, June finds silvered walls and roofs  
A-bloom with rambling roses!

Evantha Caldwell

WANTED: A copy of the *Architectural Review*, issue of  
October, 1918—The Hospital number. Communicate with  
J. Wynne Thomas, Bodnant, Lostock Park, Bolton, Lancs,  
England.

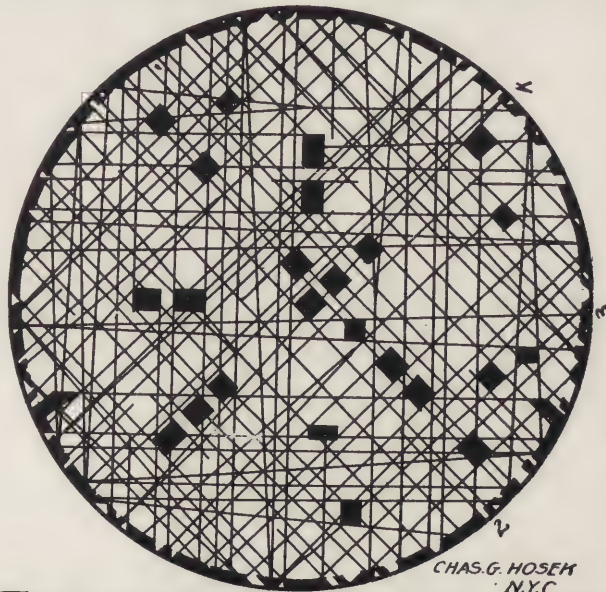
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When complete working drawings, specifications and bids  
are required for alterations the same day request is made,  
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whether building to be altered exists or not and whether  
a church, residence or garage. This is necessary only when  
drawings are to be made in ink and is due to the great ad-  
vance in the price of ink erasers. An extra charge is made  
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roofing felt. If plumbing plans are required, we should be  
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address of nearest bootlegger and price of hot dogs.

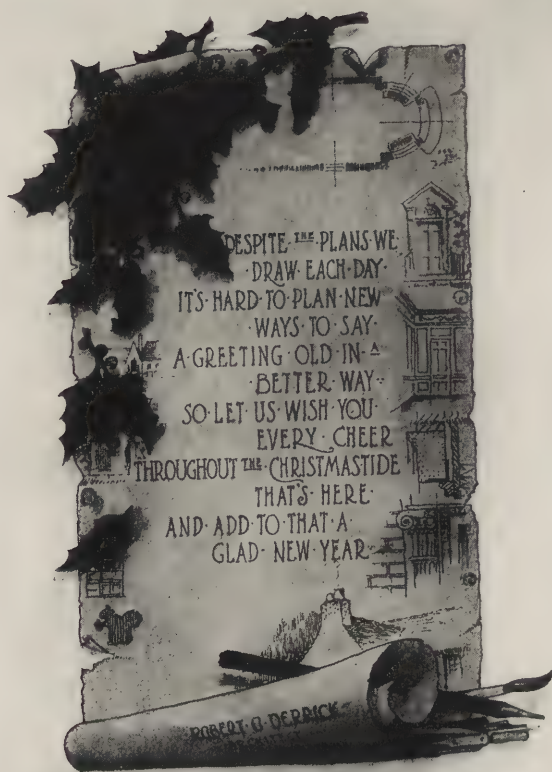
TO READERS OF  
"PENCIL POINTS"  
HERE THERE  
EVERYWHERE



1925 - 1926

THIS IS THE WAY CHAS. G. HOSEK WISHES US ALL A  
MERRY XMAS AND A HAPPY NEW YEAR





CHRISTMAS CARD FOR ROBERT O. DERRICK  
DESIGNED BY W. R. WINEGAR

GOOD FEELING AND GENUINE CAMARADERIE in every architect's office is a grand thing for all concerned, and everything which can be done to foster pleasant relations is more than worth the doing. Here is a letter received from Mr. B. V. Gamber of the office of Robert O. Derrick, of Detroit, telling of a little competition held in that shop, together with a reproduction of the winning design. There are many opportunities throughout the year for things of this sort and no such opportunity should be overlooked either by employer or employee.

Dear Sir:

As we are assured of your interest and co-operation, we are taking this opportunity to inform you of a little instance of the pleasure derived in promoting the spirit of good fellowship and friendly competition among the members of an architect's organization.

Heretofore this office availed itself of the services of one of its designers to produce a Christmas card, which is always sent to Clients, Contractors and other friends. This year it was decided to hold a competition open to all members of the staff, including the office boys. A program, very general in its terms, was posted and the fun began.

A jury composed of Mr. Derrick, another Architect, and an interior decorator viewed the eight designs submitted. As all of the entries were very good, it was quite hard for them to decide, but the winning design was finally chosen. A very complete report of the findings of the jury was written and then the name of the successful competitor was learned, and to him was awarded the first prize—the magnificent sum of Ten Dollars. Two mentions first and second were also given. The winner was Mr. W. R. Winegar.

A great deal of interest was shown in this competition. Several designs testified to the great amount of work which was done to produce them. The result was a much more attractive card than those formerly produced.

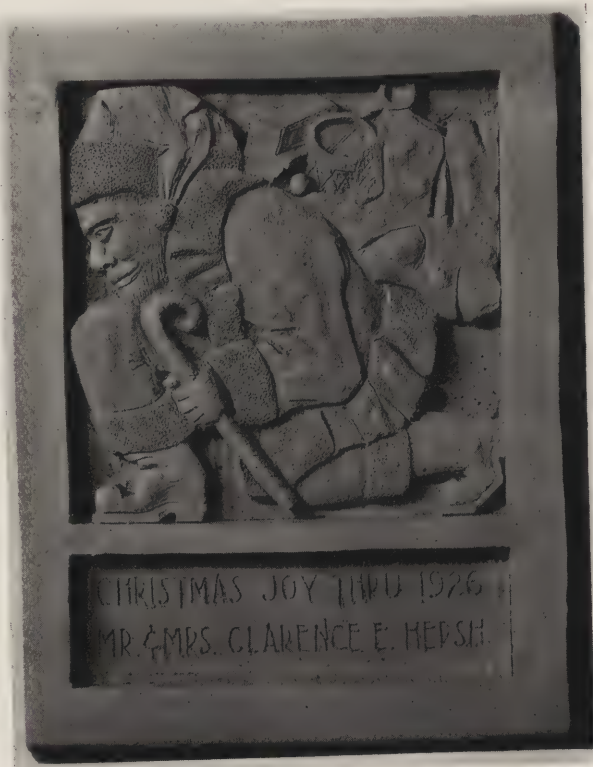
We are enclosing a copy of the card and we hope that you will publish it if you can find space for it. The suggestion is made that other offices might also derive benefit from such competitions.

Yours very cordially,  
B. V. GAMBER,



CRAYON AND PENCIL SKETCH BY R. ALEX. WILLSON

CLARENCE E. HERSH, of Allentown, Pa., sent us a greeting card, reproduced below, that is original in both design and the method of production. The result was obtained by developing the idea in sketch form, then modeling it in clay and photographing the model in its natural wet clay color. This was done with the aid of a strong spot light, to accentuate the shadows. The negative was then printed on double weight, semi-matte photographic paper. The envelopes are hand made of a gray cover paper with water color stippled on while the envelopes were placed one upon another. The cost of these cards was about ten dollars per hundred.



CHRISTMAS CARD MADE BY CLARENCE E. HERSH  
(PRIZE—Class Four—January Competition)



# THE SPECIFICATION DESK

A Department for the Specification Writer

## SPECIFICATIONS

By W. W. BEACH

### LATHING AND PLASTERING, PART XVI

PART XV OF THESE GENERAL CONTRACT SPECIFICATIONS for a Consolidated District School building in the January issue of PENCIL POINTS comprised Division K, Carpentry. Next in order is Plastering, with which is generally included Lathing and, since we began making our buildings more nearly fire-proof, the Furring that goes naturally with Lath.

In this latter connection, it must be borne in mind, if one be operating in sections controlled by labor unions, that they have set very positive lines, deciding where "Furring" ceases and "Structural Steel" begins. But, inasmuch as all such lines are exceedingly broken and wavering, it is necessary for the poor, befuddled architect to make the effort to post himself on the practice maintaining in the vicinity in which his projected building is located, and to keep himself posted thereafter.

In this specification, we are assuming that the lather may handle furring members as large as 2" channels and bars and may bolt same to structural members as required.

It will be noted that these specifications are being written without the mention of any proprietary materials as standards. That is being left to the advertising columns though, in private practice, the author does not hesitate to mention names in his specifications, if he deems the best interest of the building in question to be served thereby. Nor does he deny competitors of makers so named their "day in court."

It is fairly sage to assume that the material is yet to be made which cannot at some time expect to be equalled or excelled by another. It would therefore appear to be the duty of the architect to stop, look and listen when such claims are forced upon his attention rather than to take the attitude that he knows it all, "there isn't any more."

That this means giving time to salesmen and publicity experts which the architect would much prefer to devote to duties apparently more pressing, certainly more attractive and remunerative, is where the shoe pinches. But, one who presumes to write a specification issues a challenge to the effect that he not only knows what he is saying but also what it's all about. He *must* keep himself informed.

Hence the "or equal" clause.

Reverting to Plastering, the young architect soon discovers, by virtue of his experience in superintending, that this craft can cause him more worry than any other, unless it be Painting. These two are in a class by themselves when it comes to producing gray hairs on the head of the owner's trusted detective.

No other trade can do so much preliminary work wrong without being caught at it. No other trade is so lightly bound by the contract and so accustomed to proceed according to its own lights and habits, quite regardless of what the specifications may say on the subject.

In very truth, the writer has oft been tempted to curtail the specifications on these two subjects to their greatest possible brevity thus:

"Plastering (or Painting) shall be done in best manner, of proper materials, as directed by the Architect."

Why say more, when one can't possibly hope to get more?

But, of course, such a specification would offer too wide a latitude in public work, put out for competitive bids, hence we proceed with

#### DIVISION L. LATHING AND PLASTERING

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the work and are parts of and apply in full force to these Specifications for

Lathing and Plastering. The Contractor shall refer there to as forming integral parts of his contract.

#### ARTICLE 1. *Work Included.*

(A) THE ITEMS under this Division include:

- (1) ALL STEEL FURRING AND STUDDING.
- (2) ALL METAL LATH.
- (3) ALL CORNER BEAD.
- (4) ALL PLASTERING.
- (5) ALL CEMENT WAINSCOT and other cement plastering.
- (6) ALL OTHER WORK herein set forth or a necessary part of the foregoing.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings in this article, there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Art. 3.

(A) STEEL FURRING and cross-furring shall be provided for all suspended ceilings, including entire area over upper story and for furred spaces over lockers and other places wherever required. Steel furring strips shall be provided for inside of all outside plastered walls, except where tile blocks are specified for the purpose. Furring shall be built out to form pipe chases, where so indicated. No metal furring may be substituted where structural tile furring is called for.

(B) STEEL STUDDING shall be provided for all solid plaster partitions, including enclosures between skylights and ceiling-lights.

(C) CORNER-BEADS shall be provided for all exposed metal corners, except those of radius larger than 1".

(D) BASE-SCREED MOLD shall be provided for all concrete base where same occurs below plastered surfaces.

(E) METAL LATH shall be provided for all plastered surfaces, except where structural tile is called for or on inside walls where plaster is intended to be applied directly to concrete or masonry.

(F) CEMENT PLASTER shall be applied to all surfaces, where called for, either Portland or Keene's cement, as case may be. Both sides of all tile walls forming enclosures of air-intakes or other passages for fresh or hot air shall be plastered with Portland cement mortar. Keene's cement shall be used for all wainscotings where called for on drawings and also for walls and ceilings of lantern room, locker rooms, bath rooms and helps' toilet rooms.

(G) HARD WALL PLASTER, either lime mortar or approved proprietary brand, shall be applied to all walls, partitions, ceilings and soffits thruout finished portions of building, except where cement plaster is called for. Plaster shall be applied in 3 coats to lathed surfaces and 2 coats to concrete and masonry surfaces. Plaster shall have sand or rough-cast finish, as called for, in accordance with approved sample, on walls of assembly hall, gymnasiums and the vestibules thereto. Ceilings of air ducts and fan rooms in basement shall be furred and have two coats of plaster. Finish coat thruout building shall have a smooth, hard, white, troweled surface, except in basement and where otherwise stated.

(H) ORNAMENTAL PLASTER shall be provided wherever shown or called for, including panels, grilles, coves, run-molds, furred beams and other members indicated. All such work shall have smooth white finish, unless otherwise stipulated.



## PENCIL POINTS

(I) **POINTING.** The Plasterer shall calk and point with cement mortar around inside of frames of all outside openings, between wood and masonry, in order to make wind and weather-proof, independent of plastering and outside calking.

### MATERIALS

#### ARTICLE 3. *Furring, Lath and Corner Bead.*

(A) **STEEL FURRING** members shall be 2" x 3/16" steel channels on 1" x 3/16" (or equivalent) steel hangers.

(B) **CROSS FURRING** shall be 1" steel angles, channels or tees, as approved. When supporting members are not over 3' 0" o. c., furring members may be 3/4" channels or 3/8" rounds, or may be approved ribs engaged on metal lath.

(C) **WALL FURRING** shall be No. 22 gage galv. corrugated iron strips, or 1" steel channels independent of lathing, or approved furring strips of special make, either independent or engaged to the lath. These latter shall have not less than 7/8" projection, and be spaced about 4" o. c.

(D) **STUDDING** for 2" solid plaster partitions shall be 3/4" steel channels, weighing .53 lb. per foot. For heavy suspended furring over lockers, etc., 2" channels shall be used, weighing 2 lbs. per foot.

(E) **METAL LATH** shall be painted expended metal or welded wire mesh, of approved make, and of such gage as to weigh not less than 3.5 lbs. per sq. yd. for ceilings and furring and not less than 3 lbs. per sq. yd. for partitions. All lath shall be of a pattern that permits plaster to pass thru and so clinch on back as to entirely embed the lath and protect from corrosion.

(F) **CORNER BEAD** shall be of approved design and make, with at least 2" flanges, and sufficiently heavy to keep its shape until applied.

(G) **BASE-SCREED** shall be of approved design, No. 26 galv. iron, weighing 200 lbs. per 1,000 ft., provided with necessary clips for proper attachment, and with approved cast bull-nose angles.

#### ARTICLE 4. *Plaster and Cement.*

(A) **IN GENERAL.** All plaster materials shall be fresh and of approved make, adapted to the specific purpose for which used. All proprietary materials shall be brought on premises in original containers, plainly marked with the Maker's name and brand.

(B) **PLASTER PARIS** shall be superfine quality, of approved make, without other retardant than specified.

(C) **KEENE'S CEMENT** shall be the "regular" product, of approved domestic make.

(D) **PORTLAND CEMENT** shall be of approved make and brand, as specified for concrete work.

(E) **LIME** shall be best quality, pure lump-lime, screened and not less than 2 weeks old when used. Hydrated lime of approved brand may be used.

(F) **SAND** shall be clean, medium coarse, bank sand, except for finish coat for which white beach sand shall be used.

(G) **HAIR** shall be long, well-whipped cattle or goat hair, free from grease or other impurities.

(H) **FIBER** shall be approved long vegetable fiber.

(I) **DAMP-PROOFING** for insulating outside walls back of plaster shall be approved plaster-bond paint.

(J) **SAMPLES OF MATERIALS AND MODELS** of ornamental work shall be provided by Contractor as specified in Division A, Art. 4. Diagrams of ornamental and stone-coursed work shall also be submitted when required.

### WORKMANSHIP

#### ARTICLE 5. *Furring and Lathing.*

(A) **IN GENERAL,** the Contractor shall provide and accurately and rigidly anchor in place all metal furring, forms, anchors, ties and lathing necessary to properly complete the plastering, all as described in Art. 3. Unless otherwise shown or specified, the furring, lathing and plastering shall return into all jambs and soffits of all openings in plastered rooms and shall also extend behind all blackboards on outside walls.

(B) **SUSPENDED FURRING** shall be installed for all ceilings, balcony soffits, including false ceilings enclosing ducts, plaster beams and ornamental work thruout the building. Furring shall consist of 2" steel channels, spaced not more than 4' 0" o. c., attached to soffits of beams on approved clips or anchored in floor or roof construction in approved manner. Mason or Concrete Worker will build in anchors and clips as placed and secured in forms by Plasterer.

(C) **CROSS-FURRING** shall be 1 1/4" o. c., run at right angles

to furring and shall be wired or clipped in approved manner at each intersection. It shall lie in perfectly level plane to receive lathing. Furring under concrete joists in first story and basement ceilings shall consist of 3/8" rods wired close to bottoms of joists. For attachment to concrete joists, this Contractor shall install necessary galv. wire clips of approved pattern, 1 1/4" o. c. in bottoms of forms, before concrete is poured.

(D) **FURRING ON OUTSIDE WALLS.** All outside masonry and concrete walls (except where tile block furring is called for) and underside of all inclined roofs and stairways in plastered rooms above basement shall be furred. Furring shall extend on inside walls, which are continuations of such outside walls, to nearest angle. Furring shall be set vertically 7-5/6" o. c. in gymnasium, and 1 1/4" o. c. elsewhere, and so placed as to hold the lath 1" out from face of wall. Each furring member shall be securely attached to plugs in wall not over 3' 0" o. c. and shall be blocked out to afford perfect planes for lathing. Mason will build in plugs from instructions given him by Plasterer.

(E) **STUDDING** shall be spaced 1 1/4" o. c. for all 2" solid plaster partitions, where called for, and for furring around piping and over lockers. Studs shall be perfectly true and plumb and of proper length to be rigidly attached top and bottom. They shall be fitted with spacers to hold in proper position and shall be so maintained until covered with plaster.

(F) **METAL LATH** shall be applied to all surfaces that are to be plastered, other than concrete, masonry or gypsum block and also over all joints back of plastering between two different surfaces, extending at least 6" on same and rigidly attached. Metal lath shall be bent to form lintels, beams, cornices and stair soffits, following contours and dimensions of finished plastering. All lath shall be drawn tight over studding, and lapping 1/2" or more at sides and 2" or more at ends (only over supports) and laced together and to the supports every 6" with at least 2 loops of No. 16 gage soft galv. wire, except that lath may be secured to patent studs by means of the bent prongs on same, not over 6" apart. Ends of wire shall be well twisted and bent up beyond outer plane of lath. In partitions, lower sheets of lath shall overlap those above. All lathing shall be left in perfect condition to receive plaster, level, true and rigid.

(G) **GROUND, BUCKS AND NAILERS** for the attachment of items furnished by the various trades will be provided as specified under other Divisions. Lather shall do all necessary cutting and patching of his work to accommodate same, and for piping and other mechanical installations. Grounds will be 5/8" thick on masonry walls and, on walls furred by lather, 5/8" thicker than furring.

#### ARTICLE 6. *Corner-Bead and Base-Screed.*

(A) **CORNER-BEAD** shall be provided for all external vertical corners, including jambs of all openings having plaster finish, (except where bull-nose corners of large radius are shown) extending entire height of corners.

(B) **BASE-SCREED** shall be installed for all concrete base (as specified in Art. 3, Par. G) at proper height, in perfect alignment and secured with special clips at intervals directed by Maker. Screeds shall be put on as soon as possible after walls are in place so as to cause no delay to Concrete Workers installing base.

(C) **INSPECTION.** Corner-bead and base-screed shall be inspected both before and after application and none will be accepted which is even slightly bent or shows evidence of having been straightened. To this end, all corner-bead and base-screed shall be brought to job in boxes or crates and carefully protected until used.

(D) **APPLICATION.** All corner-bead and base-screed shall be correctly applied to serve as screeds to give proper thickness and perfect planes to plastering and shall be rigidly secured in place.

#### ARTICLE 7. *Preparation of Surfaces for Plastering.*

(A) **INSPECTION OF LATHING.** Just before beginning plastering, the Contractor shall inspect and test all grounds, furring, bucks, corner-bead, conduit work, piping and other members that are to be concealed, shall notify the proper parties to correct apparent defects and shall not start plastering until the Superintendent has been duly notified and has given his consent. Such consent will not relieve the Contractor from responsibility for all concealed work affecting plastering and for the rigidity and accuracy of all lathing. Structures for 2" partitions shall be temporarily braced on one side before first coat of plaster is applied.

(B) **DAMP-PROOFING.** All exterior walls requiring plaster-



## PENCIL POINTS

ing and which are not furred shall be given a thoro coat of plaster-bond paint before first coat of plaster is applied. This paint coat shall be carefully inspected and any imperfect spots retouched so that there may be no contact between plaster and bare wall.

(C) CONCRETE SURFACES, requiring plastering, shall first be treated with muriatic acid diluted 1 to 10, which shall remain 24 hours, then be washed off with clean water. On surfaces thus treated shall be applied a scratch coat of especially prepared approved "bonding cement" or a bonding mortar gaged with first quality finishing lime or Keene's cement. The application of the regular brown mortar on bond coat shall be made before the latter has begun to set.

(D) ALL MASONRY SURFACES, other than above specified shall be thoroly cleaned and soaked the day before first coat of plaster is applied and shall again be wet an hour before plastering is begun.

(E) ALL GYPSUM BLOCK SURFACES shall be cleaned and moderately dampened before plastering.

### ARTICLE 8. *Preparation of Plaster.*

(A) MATERIALS for plastering are specified in Art. 4. Portland and Keene's cement shall be used wherever called for. All other plastering shall be approved "patent" plaster or shall be lime mortar, at the option of the Contractor. All materials shall be fresh and mixed with clean water in clean boxes.

(B) PROPRIETARY PLASTERS, including patent plaster, bonding cement and Keene's cement shall be mixed in strict accordance with Maker's directions, copies of which shall first be filed with the Superintendent by the Contractor.

(C) LIME MORTAR. All tempering of mortar shall be done outside of building and mortar deposited on special platform, not dumped on rough floors. The Contractor will be held responsible for all water damage. All lime shall be well slaked, screened thru a sieve and thoroly mixed with a sufficient quantity of sand and hair (or fiber) in proper proportions to make solid plaster. All lime shall be well tempered and guaranteed not to pop.

### ARTICLE 9. *Application of Plaster.*

(A) PARTS TO BE PLASTERED. All walls, partitions, columns, ceilings and soffits thruout building shall be plastered, except as stated in Art. 2, or where brick or marble wainscot are specified, and back of blackboards on partition walls. All tile partitions in basement shall be plastered both sides with a single coat of cement plaster, see Art. 13, Par. B. All lathing shall be plastered, including both sides of stud partitions. All plaster shall extend full between grounds and shall extend behind all wood base to floor, but not behind other base. It shall also extend back of pipe chases on all outside walls. Plastering of second story ceiling shall be continuous over pipe spaces, so as to entirely close same, except for passage of pipes and ducts. Ceiling shall fit closely around these.

(B) POINTING. All cracks between frames and masonry in all openings in exterior walls shall be carefully pointed as specified in Par. I of Art. 2.

(C) TWO-COAT WORK. All unfurred brick, concrete, tile, and gypsum-block walls, columns and ceilings that are to be plastered shall have two coats. Suspended ceilings in basement shall also have two coats.

(D) THREE-COAT WORK shall be applied to all lathed surfaces, except on suspended ceilings in basement where finish coat will be omitted.

(E) ALL EXPOSED BEAMS AND GIRDERS in slab construction and all furred beams and cornice members shall be straightened in the plastering so that all planes, lines and angles of same shall be absolutely plumb, level and true, smooth and perfect.

### ARTICLE 10. *Lime Mortar.*

(A) FIRST COAT on lathed work shall be a scratch-coat, well troweled on, to embed both surfaces of all lath. Exposed surface shall be double-scratched and thoroly dry and hard before second coat is applied. First-coat on other work shall be same as second-coat on lath.

(B) SECOND COAT on lathed work shall be a good brown-coat, well rodde and floated to make all surfaces perfect planes, and all angles and arrises sharp, square, plumb, and true. The brown-coat shall be tested with long straight-edges in the presence of the Superintendent before finishing coat is applied and all imperfect work corrected to his satisfaction before proceeding. Brown-coat shall be properly dampened just before application of last coat.

(C) HARD-FINISH shall be composed of lime-putty, plaster-paris and white sand in correct proportion, brought full up to all grounds, thoroly brushed and troweled to smooth, even, true, hard surfaces, free from tool or brush marks, imperfect joinings or other defects, all perfectly white and guaranteed not to crack, pop, chip or show other imperfections of material or workmanship.

(D) FINISH BACK OF BURLAP AND CANVAS shall be a skim-coat, troweled to a smooth, even surface ready to receive the burlap or canvas.

(E) SAND AND ROUGH-CAST FINISH shall be applied for final coat where called for; surfaces so indicated to be scored in imitation of stone jointing.

(F) SAMPLES of finished plaster surfaces shall be submitted for approval well in advance of time work is to be done. Sample of sand finish shall show joint-scoring.

### ARTICLE 11. *Patent Plaster.*

(A) SCRATCH-COAT shall be same as specified in Art. 10, Par. A, preceding.

(B) BROWN-COAT shall be applied to scratch-coat as soon as firm and hard but before it is dry, and shall also be applied directly to all concrete and masonry surfaces which are to be plastered. Brown-coat shall be sufficient to fill between grounds and shall be brought to a straight, even surface with rod and darby, ready for finish coat. Darby shall be used lightly and water sparingly.

(C) WHITE-TROWEL FINISH shall be mixed and applied in accordance with Maker's directions, troweled perfectly smooth and shall finish white and free from defects of any description.

(D) OTHER FINISHES. Skim-coat shall be applied back of burlap and canvas, as specified in Par. D of Art. 10. Sand-finish and rough-cast shall be in accordance with approved samples, as specified in Art. 10.

### ARTICLE 12. *Ornamental Plaster.*

(A) COVES shall be constructed at ceiling angles, continuous with other plastering in all rooms where called for and of radius indicated.

(B) MATERIALS for run-molds and ornamental work shall be plaster-paris with small amount of lime-putty and fiber in the mix, to work smoothly.

(C) RUN-MOLDS shall be properly constructed, where called for, with approved steel forms, of profile detailed. All shall be in perfect alignment, all members smooth and arrises sharp and free from chips, cracks or other defects.

(D) ALL ORNAMENT shall be in strict conformity with details and approved models, all lines and surfaces true and straight. Pieces joined to form continuous design shall have end-joints so well made as to be practically invisible.

### ARTICLE 13. *Cement Plaster.*

(A) KEENE'S CEMENT shall be mixed with slaked lump lime or hydrated lime, in strict accordance with Maker's specifications, and shall be applied, one coat on concrete surfaces, 2 coats on brick, tile and gypsum-block walls and 3 coats on lath, also as directed by Makers. Finish coat shall have smooth, hard surface, without admixture of lime.

(B) PORTLAND CEMENT plaster on basement partitions shall be 1:3 mix, in one coat, 1/4" thick, hard-troweled to an even finish.

### ARTICLE 14. *Patching and Guaranty.*

(A) ALL CUTTING AND PATCHING of plaster for this and other Trades shall be done solely under this Division by expert Mechanics and in such manner as will give the appearance of a properly finished job, free from patches.

(B) PATCHING COSTS. This Contractor shall bear all expense of plaster-patching and replacement, including cost of making good other work damaged because of same, provided that such patching or replacement has been made necessary thru fault of this Contractor, or his Employees or Sub-Contractors, or materials provided by him or them. Damages by others shall be assessed against them without recourse to the Owner.

(C) REJECTIONS. If the Architect elect to do so, he may judge the work of this Division solely by the finished surfaces and may, at their completion, reject in their entirety any that, in his judgment, are not in accordance with the specifications. In the event of such rejection, he will also determine whether the Contractor shall remove all or part of the plastering from such surfaces and replace with proper materials, correctly applied; or whether, due to delays or other reasons, the Contractor shall suffer the deduction of a certain sum from his contract price, to be determined by



the Architect, as set forth in Par. D or Art. 16 of the General Conditions.

(D) GUARANTY. The Contractor, in undertaking this contract, hereby guarantees all work provided under same to be and remain in proper condition for a term of two years from date of acceptance of said work and he hereby agrees and pledges himself to replace free of charge to the Owner during said period any and all plastering which may have loosened, scaled off, popped, or shown defects of any other kind whatsoever, which defects may be, in the judgment of the Architect, due to the use of improper materials or faulty workmanship and not to shrinkage or settlement of other building construction.

*Author's note:* Whether or not one should exact a one or two year guaranty on plastering, or none at all, is an open question. A guaranty is only an apology or alternative for uncertain supervision and can well be dispensed with when the Owner is paying for full superintendence. It is then up to the Owner to decide whether he wishes to pay the Architect to properly look after the work or pay the Contractor something above his ordinary price to insure himself against the chance of being called back to the job months after it was crossed off his books.

This would practically limit guarantees to one on the roof and, perhaps to certain other items which the Contractor may be permitted to substitute for something specified.

There is also the question as to whether or not a guaranty should be supported by a bond. Architects who strive to hold down the costs of their buildings are naturally averse to adding to same the overhead represented by a surety company's premium. Ordinarily it is as easy to exact from a contractor as from his surety; and the latter generally

employs better legal talent. The writer has witnessed the failure and receivership of one surety company, some of whose bonded contractors are still doing business.

The subject of costs of plaster-patching is one that should be handled carefully, with due regard, not only to fairness to all concerned, but to local customs maintaining. This is true also of replacement of broken glass. On large jobs, running through lengthy construction periods, it may be advisable for the Architect to pro-rate all such costs as cannot be directly assessed against those responsible. This is especially true when either plastering or glazing, or both, are let independently.

In such case, the last sentence of Par. B of Art. 14 should be omitted and the following additional paragraph introduced in the specification:

"(C) PRO-RATED COSTS. All plaster repairs will be done by this Contractor and all charges intended to be assessed against others carefully kept by him. These will be checked daily by the Superintendent and later apportioned by the Architect in accordance with his knowledge and judgment. Those which cannot be charged directly against Parties responsible for the damage will be fairly prorated against all Contractors having workmen in the building at time damage occurred. This Contractor hereby agrees to suffer a deduction from his contract price of all such direct or pro-rated charges so assessed against him. The Architect does not undertake to divide such charges among the various Sub-contractors, but only among those having direct contracts with the Owner."

It is then necessary to introduce reciprocal clauses in all other specifications, in order that all other direct contractors may be duly bound as above intended.

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Hot Water—Instantly, Electrically!**—Leaflet illustrating and describing instantaneous electric water heater for the home, office and factory. Instant Electric Water Heater Co., Bridgeport, Conn.

**Acousti-Celotex.**—Folder describing this product for churches and public buildings. List of installations. The Celotex Co., Acoustical Division, 645 No. Michigan Ave., Chicago, Ill.

**Alpha Aids.**—No. 44 of this series presents among other things a cement cistern. Plans, cross sections and details are presented. Alpha Portland Cement Co., Easton, Pa.

**Con-Texts on Concrete.**—Treatise on the subject of surfacing concrete with Textured Con-Tex Concrete. Interesting data and illustrations, also points of importance to be remembered when specifying Con-tex. 20 pp. 8½ x 11. Concrete Surface Corp., 342 Madison Ave., New York.

**Hand Book on Gas Ranges.**—Illustrates and describes a wide variety of gas ranges for all uses, tables of dimensions, capacity tables, diagram showing gas demand for various floors of a typical hotel, installations. 32 pp. 9 x 11½. American Stove Co., 829 Chouteau Ave., St. Louis, Mo.

**Denzar Lighting Units.**—Catalog D-8 fully describes and shows application of this modern type of lighting unit suitable for many types of buildings. 41 pp. 5½ x 11½. Beardslee Chandelier Mfg. Co., 216 So. Jefferson St., Chicago, Ill.

*Published by the same firm, Distinctive Designs for Home Lighting, and Beardslee Talks, helpful and interesting little booklets.*

**Bayonne Roof and Deck Cloth.**—Looseleaf binder containing samples of Bayonne roof and deck cloth, price list and instructions for laying. John Boyle & Co., 112 Duane St., New York City.

**Minwax Flat Finish.**—A. I. A. Classification File No. 25-c-11. Color card and specifications with twelve panels in full colors covering flat finish for wood floors and trim. Minwax Co., 10 East Huron St., Chicago, Ill.

**Tangludust Air Filter.**—Bulletin, A. I. A. File No. 30-d-3 illustrating and describing this new type of air filter. Specifications. The Cooling Tower Co., Inc., 15 John Street, New York City.

**Luminite Cement.**—Folder describing this product for use in general building, highways, industrial plants, railroads, traction companies, river and harbor improvements, municipal, county and state work, public utilities, etc. The Atlas Luminite Cement Co., 25 Broadway, New York.

**Water Filtration for All Purpose.**—Bulletin No. 194 illustrates and describes Scaife Gravity and Pressure Filters. Contains illustrations, typical layouts, cross sections, tables of dimensions, blue print specification form and typical layout of swimming pool circulating and re-filtering system with Scaife filters and auxiliary equipment for complete installation. 8½ x 11. 32 pp. Wm. B. Scaife & Sons Co., Oakmont, Pa.

**What is Ahead, More or Less Building.**—Upson Building Survey No. 15 contains much interesting data, charts, practical tests, etc. 16 pp. 8½ x 11. The Upson Co., Lockport, N. Y.

**The Liberty Ventilator.**—Folder illustrating and describing this type of ventilator, table of capacity data, base diagrams. The John Call Co., 122 North Franklin St., Philadelphia, Pa.

**How Windows Can Make Better Homes.**—Booklet C-135 is attractively illustrated in color and contains interesting data on the subject of windows. David Lupton's Sons Co., Allegheny Ave. & Tulip St., Philadelphia, Pa.

**Paint Products.**—Folder containing color chart and full information concerning technical paints and water-proofers manufactured by the Klein Mfg. Co., Cleveland, Ohio.

**Ars Ecclesiastica.**—Brochure showing a large number of examples of wood carving as applied to church furniture and embellishment. 48 plates 8½ x 11. American Seating Co., 14 East Jackson Blvd., Chicago, Ill.

**Window Glass Specifications.**—Document prepared in cooperation with the U. S. Bureau of Standards. Grades and qualities of glass. Definitions of terms used. 8½ x 11. American Window Glass Co., Farmers Bank Bldg., Pittsburgh, Pa.

**Fences, Gates and Railings.**—Manual No. 60 containing complete specifications, scale drawings, details and dimensions, and much other useful data on the subject. Standard filing size and form 8½ x 11. 94 pp. Anchor Post Iron Works, 9 East 38th Street, New York City.

**Andersen Window Frames.**—Illustrated booklet with drawings covering design and construction of window frames. 24 pp. 8 x 11. Andersen Lumber Co., Dept. L-1, Bayport, Minn.

**Best Bros. Keene's Cement.**—Booklet on the subject of this material containing much information, together with specifications covering all kinds of plastering, both plain and ornamental, artificial marble, etc. 24 pp. The Best Bros. Keene's Cement Co., 1040 West 2nd St., Medicine Lodge, Kansas.



**Ankyra.**—Booklet showing application of this type of anchor in building construction. Sectional drawings showing details of application. 32 pp. Ankyra Mfg. Co., 149 Berkley St., Philadelphia, Pa.

**Betzco Equipment.**—Equipment for the modern kitchen and bathroom. Kitchen units, bathroom cabinets, broom closets, etc. Frank S. Betz Co., Dept. PP, Hammond, Indiana.

**Wall and Ceiling Handbook.**—Data on wall and ceiling construction for the residence. 16 pp. 5½ x 7¼. Bostwick Steel Lath Co., Niles, Ohio.

**Just Inside Your Threshold.**—Artistic booklet dealing with floor design, patterns and containing much useful data on widths, thickness and other matters dealing with correct flooring practice. 24 pp. E. L. Bruce Co., Memphis, Tenn.

**Whale-Bone-It.**—Catalog E describing and showing construction of this modern accessory for the well appointed building. 16 pp. 9 x 12. The Brunswick-Balke-Collender Co., 623 South Wabash Ave., Chicago, Ill.

**Byers Pipe.**—Loose-leaf portfolio containing collection of bulletins covering complete technical data on the subject. 150 pp. 8½ x 11. A. M. Byers Co., 235 Water St., Pittsburgh, Pa.

**The Book of Beds.**—Illustrated booklet on concealed beds of all types. Floor plans showing installations. Carefully indexed. 8½ x 11. Concealed Bed Corporation, Dept. 403, 58 E. Washington St., Chicago, Ill.

**Solid Steel Reversible Windows.**—Illustrated booklet No. 1-24 covering equipment for office buildings, schools, hospitals, and other structures. Sectional drawings and details. 20 pp. 9 x 12. Crittall Casement Window Co., 10969 Hearn Ave., Detroit, Mich.

**Dahlstrom Standard Construction.**—Illustrated booklet covering metal doors and trim, elevator enclosures, partitions, conduo-base, etc. Sectional drawings and specifications. 30 pp. Standard filing size. Dahlstrom Metallic Door Co., Jamestown, N. Y.

**Book of Fireplaces.**—3rd Edition.—Very attractive and practical book covering fireplace construction, flues, etc. as well as presenting designs of the fireplaces themselves. 24 pp. 8½ x 11. The Donley Brothers Co., 13933 Miles Ave., Cleveland, Ohio.

**Pumps for Buildings.**—Catalog No. H-3v1 covers subject indicated for the information of architects, engineers and specification writers. All suitable types of pumps are described together with their capacities for all building uses. 48 pp. 8½ x 11. Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.

**GF Fireproofing Handbook.**—8th Edition. As its name implies this work covers a wide range of fireproofing materials, their uses and application. Specifications, detail drawings, tables, types of construction, etc. 72 pp. 8½ x 11. The General Fireproofing Building Products Co., Youngstown, Ohio., Dept. LJ

*Published by the same firm, The Waterproofing Handbook, 6th Edition. Companion volume to the above covering all phases of waterproofing, technical paints, wood preservation, etc. 72 pp. 8½ x 11.*

**G & G Atlas Systems.**—Catalog No. 1755 A. I. A. File No. 35-h-21 illustrates and describes Atlas Pneumatic Tube System and supplies with details as to saving in floor space, personnel, power and maintenance and time. 8 pp. Gillis & Geoghegan, 548 West Broadway, New York.

**The Evanston Sound-Proof Door.**—Data sheets covering sound-proof doors, folding partitions and other similar equipment. Standard filing size. Irving Hamlin, 1504 Lincoln St., Evanston, Ill.

**Lock-Joint Wood Columns.**—Catalog No. 47 illustrates and describes fully this type of column. Contains instructions for ordering, sections of columns and pilasters, tables, specifications, also many illustrations of buildings where these columns have been used. 7½ x 10. 46 pp. Hartmann-Sanders Co., 2155 Elston Ave., Chicago, Ill.

*Published by the same firm, New Catalog X-51 of Colonial Entrances.*

**Vapor Details.**—Bulletin No. 21 contains Vapor System Details together with standards for computing radiation and boiler sizes, cross sections, tables of sizes, capacities and dimensions, typical elevation, typical boiler room assembly, basement piping plan, etc. Much useful data. Illinois Engineering Co. N. W. Cor. 21st & Racine Ave., Chicago, Ill.

**A Matter of Health and Comfort.**—Booklet No. 2331 on the subject of modern screening against insects. 16 pp. 5 x 8. New Jersey Wire Cloth Co., Trenton, N. J.

**Pressteel Lumber Manual.**—Handbook of information on metal lumber for a variety of uses. Tables, dimensions, detail drawings, data on walls, partitions, roofs, floors, etc. 56 pp. 6 x 9. Northwestern Expanded Metal Co., 407 Dearborn St., Chicago, Ill.

**Glass Lined Laundry Chutes.**—Booklet completely illustrating and describing this type of equipment for the hospital, hotel, club house and fine residence. Drawings and other data. 14 pp. The Pfaunder Co., Rochester, N. Y.

**Raymond Concrete Piles.**—Handbook on the subject with illustrations, details, drawings and much useful data. 60 pp. 8½ x 11. Raymond Concrete Pile Co., 90 West St., New York City.

**Sanymetal Partitions.**—Illustrated booklet describing this type of equipment for offices, factories, toilet rooms, etc. 7½ x 10½. Sanymetal Products Co., 980 E. 64th St., Cleveland, Ohio.

**Exterior Lighting Fixtures.**—Catalog 4-H, profusely illustrated, showing full range of exterior lighting fixtures for all requirements. Hundreds of designs. 96 pp. 8½ x 11. Smyser-Royer Co., Philadelphia, Pa.

**Drain Specifications and Drawings.**—Portfolio containing 15 full page detail drawings covering drainage for factories, area floors, roof gutters, garage floors, hospital floors, etc. Standard filing size. 8½ x 11. Josam Mfg. Co., 4910 Euclid Ave., Cleveland, Ohio.

**The Linoleum Data Book.**—A. I. A. Classification 28-i-1. Looseleaf portfolio containing specifications for linoleum floors, together with inserts showing colors and other useful data. Standard filing size 8½ x 11. Congoleum-Nairn, Inc., 1421 Chestnut St., Philadelphia, Pa.

**Tudor Stone Roofs.**—Brochure presenting details of attractive roofs done in slate with suitable text. Also data on terrace floors and garden walks. 36 pp. Rising & Nelson Slate Co., West Pawlet, Vt.

**Quality Plumbing Fixtures.**—Catalog K. Handsome catalog showing complete line of bathroom fixtures and specialties and kitchen sinks. Profusely illustrated with color plates, details, roughing-in measurement, cross sections and specifications. 242 pp. 8 x 11. Buchram binding. A valuable addition to any architect's library. Thomas Maddock's Sons Co., Trenton, N. J.

**Specification Manual of Plain and Reinforced Concrete.**—Coded specifications with index covering all types of concrete construction. Limited edition. Price \$1.00 per copy. Portland Cement Association 111 W. Washington St., Chicago, Ill.

**Period Adaptations for Modern Floors.**—A study of the architectural and decorative values of floor treatments exemplified in rooms of period interest with notes on designing and installing of modern floors. Contains many illustrations, color plates, specifications, data installations and details. Handsome Brochure. 60 pp. 8¾ x 11¼. U. S. Rubber Co., 57th St. and Broadway, New York, N. Y.

**Colored Concrete Buildings.**—Treatise on the subject by Hazel H. Adler. Lehigh Portland Cement Co., Allentown, Pa.

**Fenestra Casements.**—Booklet announcing new Fenestra line. Detail drawings, interiors, drawings, covering screening and shading, etc. 20 pp. 8½ x 11. Detroit Steel Products Co., Detroit, Mich.

**Nonpareil Corkboard Insulation.**—Handbook on the subject covering cold storage, warehouses and a large variety of buildings where insulation is important. Drawings, diagrams and much engineering data. 150 pp. 6 x 9. Armstrong Cork and Insulation Co., Pittsburgh, Pa.

**Greenhouse Studies.**—Series of renderings by Vahan Hagopian which includes plans elevations, sections and structural features of all types of glass enclosures, solar bathing rooms, glass enclosed swimming pools, aviaries, and children's glassed-over play houses, as well as green houses of various types. A suitable binder will be furnished with first mailing. Lord & Burnham Co., 30 East 42nd St., New York City.

**Drinking Fountains.**—Booklet illustrating and describing various types suitable for all uses. 16 pp. 8 x 10. D. A. Ebinger Sanitary Mfg. Co., Columbus, Ohio.

**The Regulation of Temperature and Humidity.**—Complete catalog, handbook and specification guide, showing in detail the entire line of Johnson Temperature Controlling Devices for all types of buildings. 74 pp. 8½ x 11. Johnson Service Co., Milwaukee, Wis.

**The Kernerator.**—Covers disposal of rubbish and other waste in the residence and apartment building. 40 pp. 6 x 9. The Kerner Incinerator Co., 1003 Chestnut St., Milwaukee, Wis.

**Water Mixing Valves.**—Illustrated handbook showing thermostatic water mixing valves for showers and a variety of other uses. Diagrams and complete specification data. 32 pp. 7½ x 10½. Leonard Rooke Co., Providence, R. I.

**Lithoprints, What They Are, How They Are Made, How They Are Used and What They Cost.**—Loose-leaf portfolio with samples. Useful in every drafting room. Standard filing size. Lithoprints Co. of New York, 41 Warren St., New York City.

**Major Flood Light Unit.**—Bulletin No. 5. Describes the construction and adaptability of the Major Unit for efficient Flood lighting in theatres, show windows, mills, etc. List prices and dimensions. Major Equipment Co., Inc., 360 N. Michigan Blvd., Chicago, Ill.

**Color in Architecture.**—Brochure with 12 full page color plates after original color renderings by Rudolph De Ghetto. Also many other engravings illustrating the text, which is by Mr. F. S. Laurence. A valuable addition to the architect's library. 60 pp. 9 x 12. National Terra Cotta Society, 19 West 44th St., New York City.

**The Stockade System.**—Booklet setting forth complete data on a new building material and a new building system. Four color pages and detail drawings, and complete story of application especially for buildings four stories or less in height. Standard filing size 8½ x 11. 24 pp. Stockade Building System, Inc., 103 Park Ave., New York City.

**Jacob's Parallel Straightedge.**—Leaflet describing a new and valuable article for the drafting room. Keuffel & Esser Co., Adams & Third Sts., Hoboken, N. J.

**Membrane Waterproofing.**—A. I. A. Classification 7-a-1. Document covering subject with drawings, photographs, specifications, tables of test values, etc. Standard filing size. 8½ x 11. 26 pp. Minwax Co., Inc., 270 Madison Avenue, New York City—327 S. La Salle St., Chicago, Ill.

**Reinforced Rubber Flooring.**—A. I. A. File No. 23c. Looseleaf portfolio for architects containing illustrations of all types of installations, detail drawings, specification, 12 reproductions in full colors and much other data. Standard filing size 8½ x 11. Stedman Products Co., South Braintree, Mass.



## The ELDORADO SKETCH CLUB



SKETCHING WITH "THE MASTER DRAWING PENCIL"

ON FRIDAY evenings a small group of architects meet in New York around a great table and make pencil sketches far into the night. Ernest W. Watson, the author of these Eldorado Pages for the Joseph Dixon Crucible Company, has been the enthusiastic conductor of this little club for the past three years. It is his pet hobby. He says, "Only those who love to sketch can appreciate how much good, in fun and progress, comes to us all on these Friday evenings."

From the many letters which we have received from ambitious readers of *Pencil Points*, it is certain that a large company of pencil enthusiasts would like to draw up their chairs around this sketch club table and share the inspiration and instruction which these favored few enjoy.

Well, here's the opportunity. The Joseph Dixon Crucible Company has appointed Mr. Watson Director of The Eldorado Sketch Club. A limited number of non-resident members will



ERNEST W. WATSON

is probably pre-eminent among teachers of lead pencil drawing in America. For years he has been a prominent member of the faculty of Pratt Institute. As an expert renderer of architectural subjects, his work is known and admired by leading architects all over the country.

be accepted. Mr. Watson's method of teaching assures the same progress to non-resident members as to the resident members. For Mr. Watson does not teach by talking. He demonstrates how it should be done by making sketches for each student. Sometimes corrections are made on students' drawings; usually quick sketches are made to illustrate methods of composing and to demonstrate technical points. Few words are necessary to a complete criticism.

This is an unusual opportunity and those accepted for membership will profit greatly from the instruction offered. Of course, the membership cannot be large when you consider the character of the work and the fact that Mr. Watson will personally criticize the sketches of every member. If you wish to join The Eldorado Sketch Club, please write us immediately so you can receive detailed information and application blank. Joseph Dixon Crucible Co., Pencil Dept. 167-J, Jersey City, N. J.



# The ELDORADO PAGE

Sketching with The MASTER DRAWING PENCIL

3 ways of composing  
this subject



3 ways of composing  
this subject



This is No. 11 of a series of Pencil Lessons prepared by Ernest W. Watson. We will gladly send you proofs of Lessons 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10 on request; also additional proofs of this page and proofs of coming advertisements in this interesting pencil series. Write, too, for samples of Dixon's "Eldorado" and of Dixon's "Best" Colored Pencils. Both are supreme in their field.

JOSEPH DIXON CRUCIBLE CO., PENCIL DEPT. 167-J, JERSEY CITY, N. J.



## A Free Employment Service for Readers of Pencil Points

**Wanted:** two experienced draftsmen on hotels, office buildings of moderate size, schools and residences. Permanent positions with future. Give salary, references and samples of work. Only experienced men need apply. Bauman & Bauman, Knoxville, Tenn.

**Wanted:** Architectural Draftsman, high class with executive ability and experience in designing distinctive residences. Capable of taking charge of our Plan Department. State experience in letter to us and give references and salary to start. Write B. B. Barnett, W. J. Hughes & Sons Co., 14th & Maple, Louisville, Ky.

**Wanted:** Senior draftsman of ability and experience on schools, offices, banks and public buildings. Must be capable of making complete working drawings from sketches and data. Good future to the right man. References required. Good salary. William T. Nolan, architect-engineer, 1000 Canal Commercial Bldg., New Orleans, La.

**Wanted:** Architectural detailers and draftsmen. Apply in own hand writing, stating experience, age and salary expected. Louis Kamper, 3729 Cass Ave., Detroit, Mich.

**Wanted:** Capable superintendent with drafting ability. Must have knowledge of high class building structure and interior details, banks, etc. The Owsley Co., 669 Wick Ave., Youngstown, Ohio.

**Wanted: Architectural Draftsmen:** Several experienced draftsmen required for general working drawings. State experience, salary expected and when available. Permanent positions for good men. Address reply to Mr. Wm. C. Bunce, Chief Draftsman, care Albert Kahn, Inc., Marquette Bldg, Chicago, Ill.

**Wanted:** All-round high class architectural draftsman, one with knowledge of school work preferred, good position and steady work for the right man. Write stating particulars, experience, references, salary expected, etc. Office is in Bridgeport, Conn. Box A Pencil Points.

**Wanted:** Architectural designer. Only men of experience and all around experience should apply. Salary \$150 per week. New York office. Box B Pencil Points.

**Wanted partner.** An experienced architect, licensed in North Dakota desires to connect with architect of pleasing personality in the Northwest or Southwest. Capable in all lines of work, and has had considerable experience in commercial work in the North and South. Age 44. Box C care of Pencil Points.

**Architectural draftsman wanted:** A firm of bank architects requires an architectural draftsman to check the production of the office for technical accuracy, conformity of the drawings with each other and with details, adherence to the specifications and to assure the inclusion of those particulars which have become the standards of the office. The man to fill this vacancy will be probably 40 years old, with long experience in fine buildings, possessing an intimate knowledge of their details. By performing his duties tactfully and effectively he will be assured of a permanent position. Box D, Pencil Points.

**Desirable accommodations available for architect or engineer.** John Van Pelt, architect, Room 37, 126 East 59th Street, New York City.

**First class experienced architect and designer** would like to communicate with architect in need of such help, preferably south near Florida. N. R. Nippell, 290 Summer Ave., Springfield, Mass.

**Young woman** with experience in architectural drafting, some business training, can handle water colors; desires connection with decorator, architect or landscape architect. Will go anywhere good opportunity offers. Box E, Pencil Points.

**Position wanted** with either an architect or firm of builders who need a man capable of specification writing, superintending or taking complete charge of construction. Architectural graduate with 14 years' practical experience in all phases of building. Willing to go where job calls. Will finish present job about April 1st at which time is desirous to go direct to new place. Box F care of Pencil Points.

**Senior draftsman** desires position. University and 11 years' experience (3 years practice for self). All classes of buildings, in design, detail, specifications and superintendence. Registered, married, Christian. Prefer central or central west. Capable of taking charge of office. Six months guarantee. Box G care of Pencil Points.

**Junior draftsman** would like night work in architect's or contractor's office. Box I care of Pencil Points.

**Young man** would like position as junior draftsman or tracer. Twenty-one years of age and have had three years' experience in architect's office, tracing, drawing plans for cottages, garages, loft and office buildings, apartment houses and hotels. Box H, Pencil Points.

**Architectural draftsman** desires position in small architectural office. Two years' college training, six years' experience in mechanical and architectural drafting. Prefer progressive southern city. Salary \$50 per week. Box J care of Pencil Points.

**Architect** licensed in New Jersey, desires permanent position in New York or New Jersey. Fifteen years' experience on residences, banks and schools. Married. Christian. Box K care of Pencil Points.

**Young man,** graduate of University of Illinois, department of architectural engineering, 27 years old, five years' varied experience both in office and field, would like position as junior or assistant specification writer and superintendent, in New York City office. Box L, Pencil Points.

**Partnership** or associateship desired by registered architect, member of A. I. A., and Columbia graduate. Active man having varied experience. Able designer, draftsman and colorist. Has ability in handling clients. Desires New York connection. Box M care of Pencil Points.

**Young lady** would like position in Pittsburgh district for either full or part time work. Can make working drawings from freehand or instrumental sketches. Have had experience mostly in residential work but have worked on drawings of churches and all kinds of commercial buildings. Can furnish good references or show samples of work. Have work now but not steady. Will work on trial. Box N care of Pencil Points.

**Position desired** by college graduate who has had eight years' practical experience and has had full charge of architect's office. Has good position at present but desires connection with established firm with opportunities for advancement. Box O care of Pencil Points.

**Draftsman** with several years' experience on board and field work developing plans from sketches to completion, alterations and new buildings, some specification writing, supervision and fixture work would like position. Reasonable salary. Will travel. Box P care of Pencil Points.

**Architectural Engineer,** University graduate, 15 years' experience in general architectural practice, both in field and on the job, desires association with reputable firm of architects as engineer, specification writer and construction superintendent. Texas location preferred. Address J. M. M. 128 N. Page Ave., Dallas, Texas.

**Architect's superintendent** wishes position—20 years' experience on fireproof, concrete and residential work. Also mechanical work in buildings. Good executive. Box Q care of Pencil Points.

**Wanted:** competent draftsman with good experience. Steady position for right man. Box W, Pencil Points.

**Position wanted** by building material salesman, who has access to prominent architectural offices in New York City. Prefer face brick. Box R care of Pencil Points.

**Architect,** draftsman, designer, office manager, 38, married, 18 years' experience in architects' offices in New York, South, West, North, seeks permanent connection in charge of small office. Locate anywhere. Transportation. Salary \$84 to start, Florida \$150. Box S care of Pencil Points.

**Stenographer-Bookkeeper:** Young lady desires position in architect's office, five years' experience in the building line, expert in writing specifications. Will consider part or full time. Box T care of Pencil Points.

**Position desired** as superintendent, executive and draftsman where many years' experience in practically all classes of buildings can be turned to advantage. New York or Newark preferred. Full details given to interested inquiries. Box U care of Pencil Points.

**Young man,** one year college training, studying engineering, wants position as junior draftsman. Have had no experience. Will consider anything where there is a chance of advancement. Box V care of Pencil Points.

**Personnel man** with wide experience would like to locate with architectural, building or manufacturing concern in New York City, Brooklyn or Queens. Personal interview would be appreciated. Available after February 1st. A. M. K. care of Pencil Points.

**Wanted:** Junior Draftsman. Bring Samples of Work. Edward I. Shire, 373 Fourth Ave., New York City.



# PENCIL POINTS

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Number 3

## TEAM WORK

IN THE PURSUANCE OF HIS ART, the architect must work through many men of various minds. The work of an architect does not differ in essentials from that of the other creative arts, but in one important particular it differs from the arts of the painter, the sculptor and the writer, in that the expression in concrete form of an abstract idea must be deputized by the architect, while they are able to work without intermediaries.

The most important, the most necessary of the men through whom an architect must work are the draftsmen in his own office. Fortunately, in the United States there is no profession in which higher standards obtain than among the architectural draftsmen. They are often worked for unbelievably long periods at a stretch; they must always subordinate their own conceptions of design to those of their employer; and their salaries are often pitifully small—but they seldom fail to make good. Their kindness and helpfulness to each other are beyond words; jealousy and friction and determination to succeed at the expense of another, so common in other trades and professions, are seldom encountered. The newcomer in the profession is helped and taught; his faults are corrected and his abilities appreciated by his fellow draftsmen. Many of the most successful architects know that they have learned a great deal about architecture while they were draftsmen and that much of their knowledge was taught them by fellow draftsmen.

The broadminded architect, who becomes an employer of draftsmen, finds that he continues to learn from them. The architect must look to the draftsmen, not only to carry out his schemes, but to advise about them and as a rule he receives no criticism so valuable, so constructive, so trenchant as that given by the men who work for him.

The press of affairs—business, executive and otherwise—upon the time of the architect necessarily limits his drawing-board hours. His pencil is really in the hands of his draftsman and the mental understanding between them must be such that there is a sympathetic comprehension of his aims, interpreted not as the draftsman's personal opinion but as a full expression of the way the architect is endeavoring to realize them. Of course many suggestions and minor improvements will continually suggest themselves to the draftsman but they should always bear the stamp of the original conception.

The relation between architect and draftsman should be that of one artist to another or that of teacher to the pupil. That the boss is the boss proves that he has fully developed certain abilities which differentiate him from the draftsman. It is true that many draftsmen, who in their ability and knowledge of design, are on the same artistic plane as the man whose "shingle" is on the door, but they still lack one or more of the necessary component parts that go to make an architect.

Being artists themselves, the draftsmen should not substitute flattery for criticism, but should be sincerely anxious that the joint work of the office be as creditable as possible. They should never hesitate to point out defects or faults.

Loyalty to the boss is begotten only by the mutual respect of architect and draftsman. If a draftsman feels that he knows more than the architect for whom he is working, he is handicapping himself as well as his employer. He should seek another job where he could feel that the architect's criticism of his work was founded upon superior knowledge.

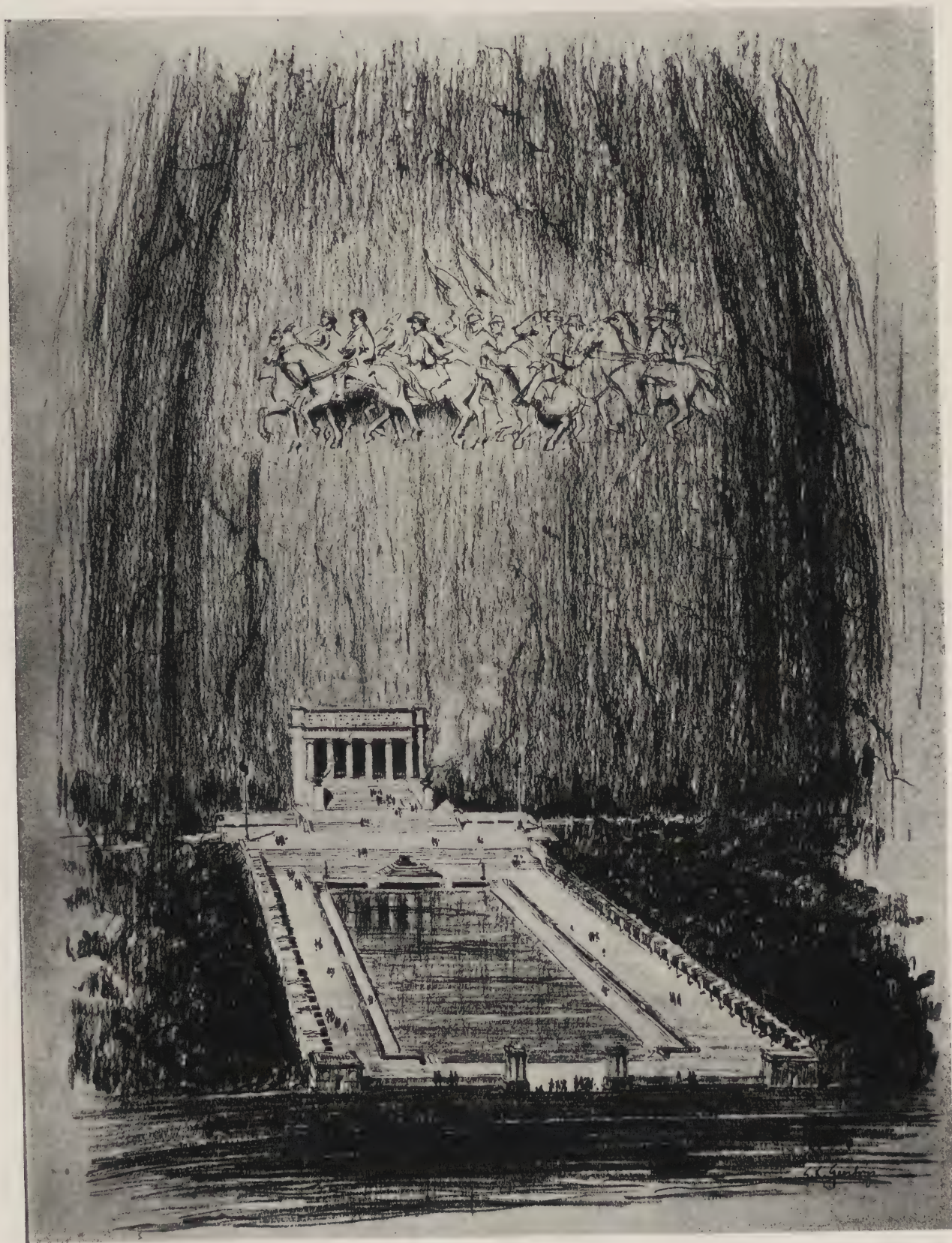
Among the better architects there is never any lack of appreciation of a man's talent, and if he is really capable and expends his best efforts for the good of his employer, the effect upon not only his own artistic career, but also upon the weekly pay envelope will be noticeable.

If the draftsman is satisfied that he is in the right office and has the proper respect for his employer's criticism, he can give to the work in hand a serious consideration which represents his best interpretation of the boss's idea and know that any effort he may make toward improving the scheme either will be accepted as such or frankly condemned because it is not a true interpretation of the idea. If the boss does not agree with him, it is usually because he has departed in some vital respect from the original conception, which, in the light of the boss's contact with conditions unfamiliar to the draftsman, is not considered warranted. The boss should always be the judge as to what is or is not right in the interpretation of his ideas.

It is not only personal loyalty to the office that should be kept in mind, but also loyalty to its accepted traditions of design. The ideal draftsman working for the ideal boss is an interpreter and not primarily a creator.

Most architects will agree that there is no appreciation of creditable work so pleasant as that of the men who have assisted toward its success.





STONE MOUNTAIN CONFEDERATE MEMORIAL, AUGUSTUS LUKEMAN, SCULPTOR  
RENDERING IN CARBON PENCIL BY GERALD K. GEERLINGS



# SILHOUETTES OF AMERICAN DESIGNERS AND DRAFTSMEN, II

GERALD K. GEERLINGS

I FEEL CALLED ON to say this for myself: I am white—and actually not nearly as black as the silhouette makes me out to be.

I started in Milwaukee.

I was not brought up on beer and pretzels, but on thumbtacks and crayons. Figuratively of course, but literally by the time I was four I had lost more valuable thumbtacks (the expensive, old-fashioned brass ones) and wrecked more colored pencils than my uncle's entire architectural force had used up in a decade. That leads me to explain my thumbtack career since infancy—I was blessed with two uncles, demigods, who used to return on vacations from studying architecture at the University of Pennsylvania, with toys such as no other neighborhood infant had. I was their only live plaything and the attention I got convinced me while I was still inhabiting a cradle that theirs was the life on Olympia. I would be like them.

By the time I had attained the veneration of fourteen years my elder uncle, Mr. Gerrit De Gelleke (of Van Ryn & De Gelleke, Milwaukee) took me into the fold at his office, as an apprentice nuisance and tolerated me goodnaturedly during my vacations and spare time. Working betwixt and between high school hours and terms I gradually gained the summit of being a captain of finance, pocketing the weekly sum of three dollars. Doubtless the damage I caused and materials I used cost thirty dollars.

However, my uncle kept up his good nature; I kept on. As is the custom in Milwaukee, a draftsman, to earn that distinguished title, must know how to tangle rods in reinforced concrete, make ventilating ducts efficiently intertwine themselves, lay out electric hieroglyphics, do perspective renderings, design ornament without documents—in a word, be a complete organization personnel, a library and a "Kidder" all combined in one. I strove mightily,

but I was not equal to even a fraction of the guild's requirements.

I attended art school nights and ruefully gazed at casts of Greek cabbages and Homer's beard. I kept Windsor and Newton, Strathmore and several similar enterprises in a prosperous condition by taking "decorative design." I still feel sorry for all the red sables that needlessly sacrificed themselves to make brushes for me. The war saved their further extermination, because the day after the Big Noise became official, I joined the army with the rank of "Buck Private." As an important hindrance to the 32nd Division, 120th Field Artillery, I got a free passage to Europe on the Leviathan, in the fifth American division which arrived to exasperate the French.

In due course of time when the Big Noise had officially quit with the Armistice, someone "slipped up" in an army order which commanded me to report to Winchester, England, for assignment to an English university. I can't decide if my funny Holland name got itself misread as code for some Major-General's son, or if the Powers That Were took compassion on

my ignorance. Anyhow, I got to Winchester in time to attend the first ball the Lord Mayor had given since pre-bellum days. I was forwarded to Liverpool where I spent my time while awaiting assignment, dancing by night and figuring by day on how I was going to exist as a furloughed officer and "scholar" on the pay of a "shavetail". The Gods of Luck rolled me another seven and I was sent to Cambridge. Here I was retained for two terms as a cowboy-Indian curio. During that time I ruined considerable paper making sacrilegious representations of buildings and details. I partially absorbed such fragments of learned lectures on the history and traits of art, archaeology and architecture as were not delivered in Greek. Weekends I commuted to Lon-





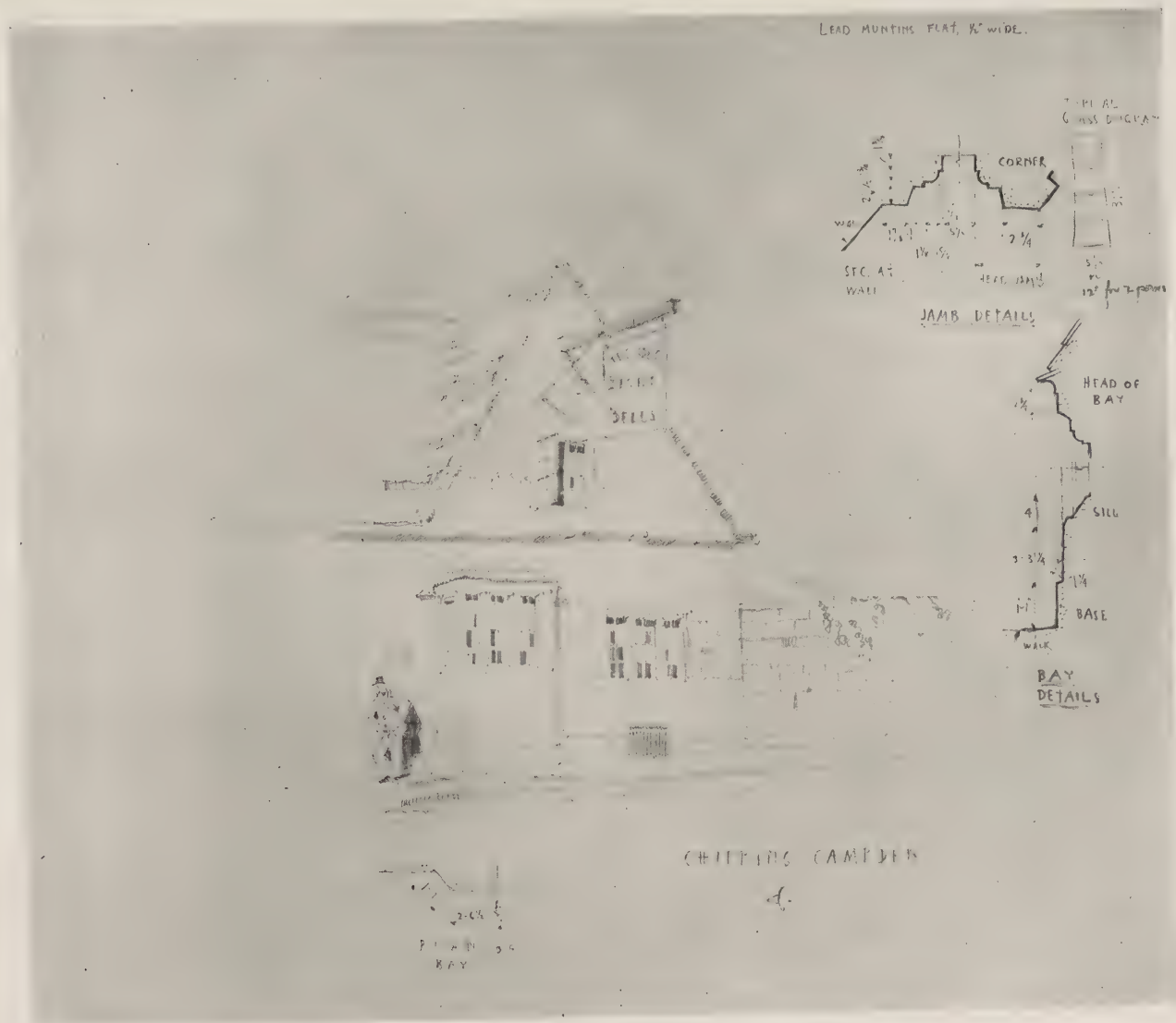
## PENCIL POINTS

don and infested the British and South Kensington Museums. Between terms and at other times I romped pretty much at random over the Isles.

Among my long list of architectural creditors I must give first mention to my father. He drilled into me the necessity and sanctity of hard-labor. All his life he has been in the building game and at the present moment probably knows more ingenious construction devices, and more about the anatomy of a building than any other mortal. Next my two uncles. Mr. Gerrit De Gelleke already mentioned, for affording the opportunity to learn concrete calculations, general school planning and details, superintending, pen-and-ink rendering and what not. His partner, Mr. Henry Van Ryn, I owe a similar debt. I also envy him the finest voice and personality in the profession. My other architectural uncle, Mr. Peter De Gelleke (of Armstrong & De Gelleke,

New York), has been a second father, a good pal, and a dispenser of much needed advice and information, both general and architectural. If he had not talked sternly and sensibly to me, when I returned from overseas with an advanced chronic case of wanderlust-itis, I should have gone to Tibet to sell mousetraps.

At the University of Pennsylvania I became one of the most devout disciples Mr. Paul Cret ever had. In the realm of architecture pure and simple I owe him the bulk of all indebtedness. For Mr. George Walter Dawson, president of the Philadelphia Water Color Club and professor in water color at the University, I cannot say sufficient, both professionally and affectionately. John Singer himself cannot have commanded a more magic number 12 brush, loaded with color and patience and sympathy. In two years at York and Sawyer, particularly the



SKETCH AND MEASURED DETAILS MADE AT CHIPPING CAMPDEN, ENGLAND

BY GERALD K. GEERLINGS





CITY GATE  
VALENÇA DO MINHO, PORTUGAL

1906

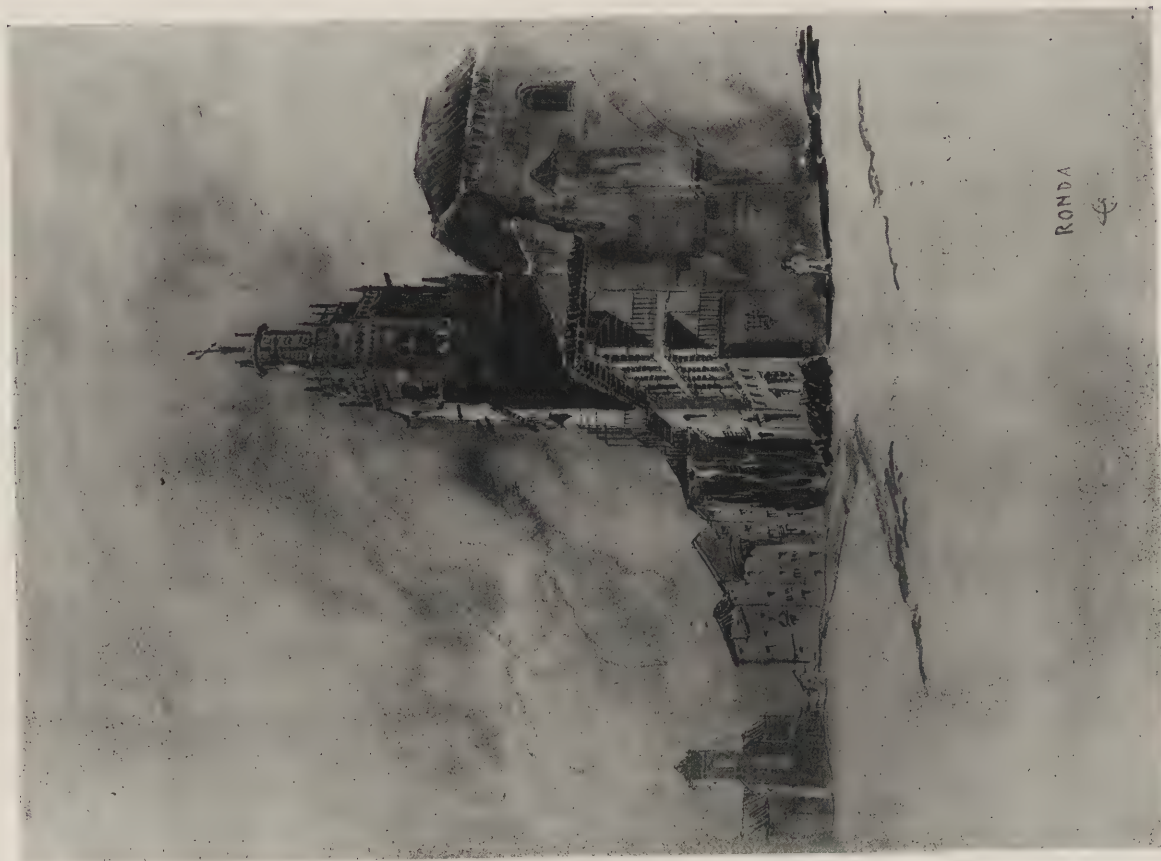
SKETCH BY GERALD K. GEERLINGS, CITY GATE, VALENÇA DO MINHO, PORTUGAL

(Made with 5B pencil on cameo paper and small amount of brilliant color in figures.)





THE GORGE AND BRIDGE  
(On yellow charcoal paper.)



SANTA MARIA LA MAYOR  
(On pink charcoal paper.)

WATER COLOR SKETCHES MADE AT RONDA, SPAIN, BY GERALD K. GEERLINGS





PUENTE DE ALCANTARA  
TOLEDO. —

17 G 24

SKETCH BY GERALD K. GEERLINGS, PUENTE DE ALCANTARA, TOLEDO, SPAIN  
(Made with 5B Pencil on Camco Paper.)



PENCIL POINTS



SKETCH BY GERALD K. GEERLINGS, DONATELLO'S OUTDOOR PULPIT AT PRATO  
(Made with 5B Pencil on Cameo Paper.)





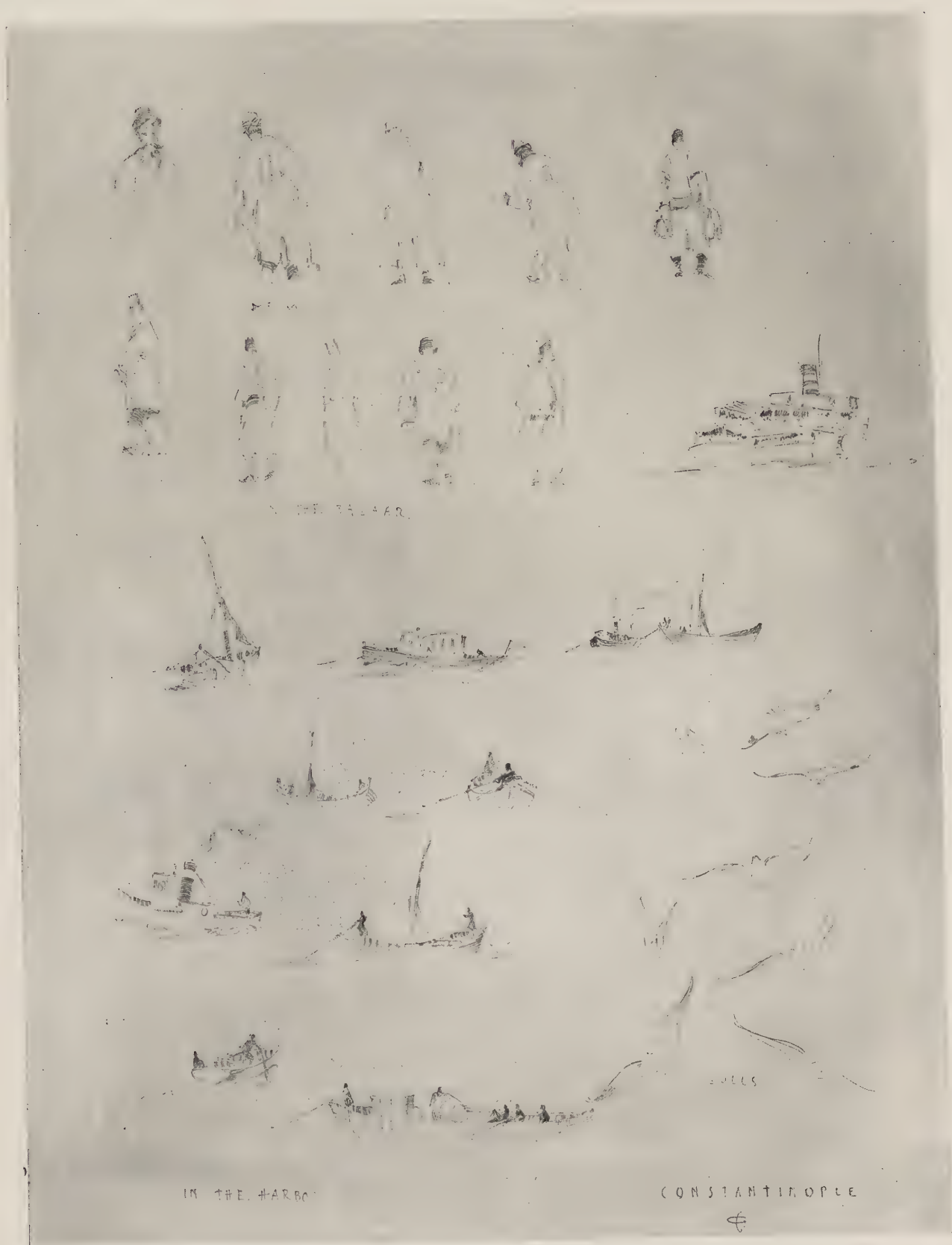
ORVIETO



OLD HOUSES ON FOUNDATIONS OF ROMAN WALL AT LEON, SPAIN  
PENCIL SKETCHES ON CAMEO PAPER BY GERALD K. GEERLINGS



# PENCIL POINTS



PENCIL STUDIES MADE AT CONSTANTINOPLE BY GERALD K. GEERLINGS





WATER COLOR SKETCH ON CERULEAN BLUE CHARCOAL PAPER BY GERALD K. GEERLINGS

last one and a half years, I worked constantly under the eyes of Mr. Philip Sawyer and Mr. Louis Ayres. I was allowed to play with new projects, beginning them from the white-paper stage. To daily work with and witness Mr. Ayres' genius for intense concentration, his amazing power of solving problems in plan or design in hitherto unthought of brilliant schemes, his rapidity in perceiving a solution and seeing its limitations as well as its possibilities—is one of my richest architectural endowments.

The University of Pennsylvania was too generous in bestowing on me the B. A. and M. A. degrees, and in 1924-1925, in sending me abroad. During that time I used up a considerable quantity of cameo paper for pencil sketching and eight shades of Strathmore charcoal paper for water-colors. The fact that I religiously kept using up paper was partially because my frugal nature dictated that I had better make use of what I had bought. But the real reason is that my many-talented wife bolstered up my flagging impulses and dispelled chronic "blues" over poor results.

The best luck I had in sketching during the year abroad was on the eight shades of Strathmore charcoal paper. It comes in sheets 40 x 26 inches which I cut into eight pieces each 10 x 13. The tones are so excellent and pleasing to look at, that I soon discovered the less I did to them the better the result. The more the paper counted, the more successful the

sketch. Using either charcoal or 3B pencil I tried to execute a carefully edited drawing, not much heavy prose but considerable punctuation. Washes in transparent color where possible and opaque where necessary, applied in scanty paragraphs, created an effect quickly after I had the color scheme worked out mentally. With my particular cerebrum that was the lengthiest process in producing the sketch.

The initial problem in working on tinted paper is fitting the color to the subject, not vice versa. A seascape does not enjoy itself on terra cotta colored paper, while a sizzling hot Bologna street scene is seven-eighths finished before beginning. The cerulean blue shade worked well on water subjects, or where there was considerable blue sky and shadow. The dark green tone seemed to be good moonshine paper (literally speaking), but was not a substitute for foliage. At least I could not convince it. The light green and light pink did for almost anything, but were particularly pertinent where the outline of the mass was not too overwhelmingly exciting, and the composition had to be tricked into doing a "fade-away." The gray paper served so adequately for mist, fog and rain that all I needed to contribute was a furry drawing and an appropriate title. A golden toned paper invited sunshine of its own accord. All one does is define a few well-chosen, interesting shadows in cerulean, add several gnarled shrubs



PENCIL POINTS



WATER COLOR BY GERALD K. GEERLINGS, "WEISSER TURM," NURNBERG  
*(Made with transparent and opaque water color on cerulean blue charcoal paper)*





WATER COLOR BY GERALD K. GEERLINGS, HOHENZOLLERN BRIDGEHEAD, COLOGNE  
*(Made on dark green charcoal paper)*





WATER COLOR BY GERALD K. GEERLINGS, ST. WOLFGANG'S KAPELLE, ROTHENBURG, GERMANY

*(Made on yellow charcoal paper with cerulean blue strips in the sky and emerald green foliage)*



WATER COLOR BY GERALD K. GEERLINGS, NARBONNE, FRANCE

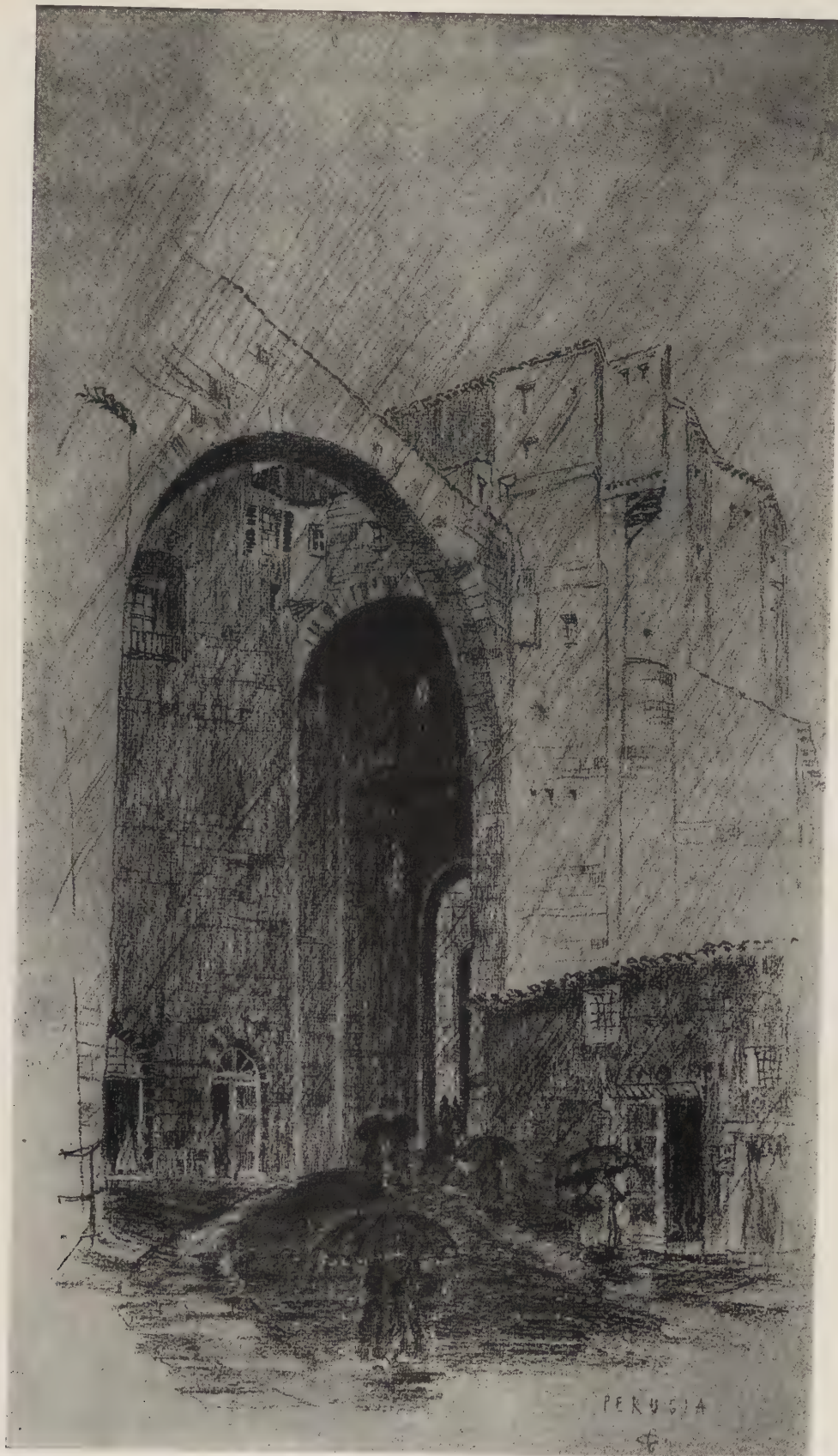
*(Made on water color paper in brilliant, contrasting colors)*



PENCIL POINTS



FOUNTAIN PEN SKETCHES BY GERALD K. GEERLINGS



CHARCOAL DRAWING BY GERALD K. GEERLINGS, PERUGIA





STREET IN BRUGES, BELGIUM  
*(Made on yellow charcoal paper)*



THE RIVER AT NURNBERG, GERMANY  
*(Made on light pink charcoal paper)*

WATER COLOR SKETCHES BY GERALD K. GEERLINGS



PROPOSED EUROPEAN HOTEL

MUHLBERG BROS. ARCHITECTS  
GERALD K. GEERLINGS, ASSOCIATE ARCHITECT

SKETCH ON MOUNTED TRACING PAPER WITH CARBON PENCIL BY GERALD K. GEERLINGS, PROPOSED HOTEL AT MIAMI, FLA.  
MUHLBERG BROS. ARCHITECTS, GERALD K. GEERLINGS, ASSOCIATE ARCHITECT



## PENCIL POINTS

or a shapely tree, throw in a figure with vermillion cape, and the battle is over. There is a golden brown shade which is complete in itself. However, it seems to welcome every brilliant color on the palette, so that no matter what kind of a chess game you play with cadmium orange or emerald green, vermillion or cerulean, you always come out the winner.

Because of the colored paper being virtue herself, it is best to let well enough alone and not attempt to force an all-over sky wash. It seems wiser to sneak a few meandering stripes of blue across the horizon to suggest clouds or sky. The paper came in loose sheets as described but acquitted itself satisfactorily in submitting to being held down head and toe with two rubber bands. Of course it will buckle a bit but that does not matter. After completing the sketch and on returning to civilization, wet the back of the paper all over slightly by a squeezed-out

sponge of water. Then place the limp sketch between several virgin-white blotters and surmount by a pile of unread architectural magazines. On completing the drawing and before adding color, I attempted to visualize accurately the ultimate result. When I succeeded in doing so the product looked somewhat plausible. On the darker shades our old acquaintance, Chinese White, comes in for a big share of the glory in making himself necessary to opaquing the other colors of course.

The outstanding thing about the year's sketching abroad—in fact the only outstanding thing about me—is that I never wear a hat the year around. When I check my coat on breezy, wintry days I am invariably offered a choice of several hats. When building slumps I may be forced to leave off my honest ways, accept the proffered hats, and earn a comfortable living as a prosperous dealer in second hand chapeaux.



PEN AND INK SKETCH BY GERALD K. GEERLINGS

A METHOD OF PERSPECTIVE DRAWING WHICH ASSURES A GOOD AS WELL AS ACCURATE PICTURE

MOST DRAFTSMEN SEEM to know how to make perspective drawings, more or less well, depending on the number they may be called upon to do, but very few of them seem to be able to tell before hand how a drawing will look when finished. Due to a mistake in the choice of a station point, the result is oftentimes not a good picture, though the drafting may be excellent. This is

be excellent. This is true despite the fact that it is possible to tell quite accurately how the drawing will look before the first line is put down, and it is equally possible so to choose a station point that the perspective drawing will approximate very closely a freehand sketch which may be made before the drawing is started.

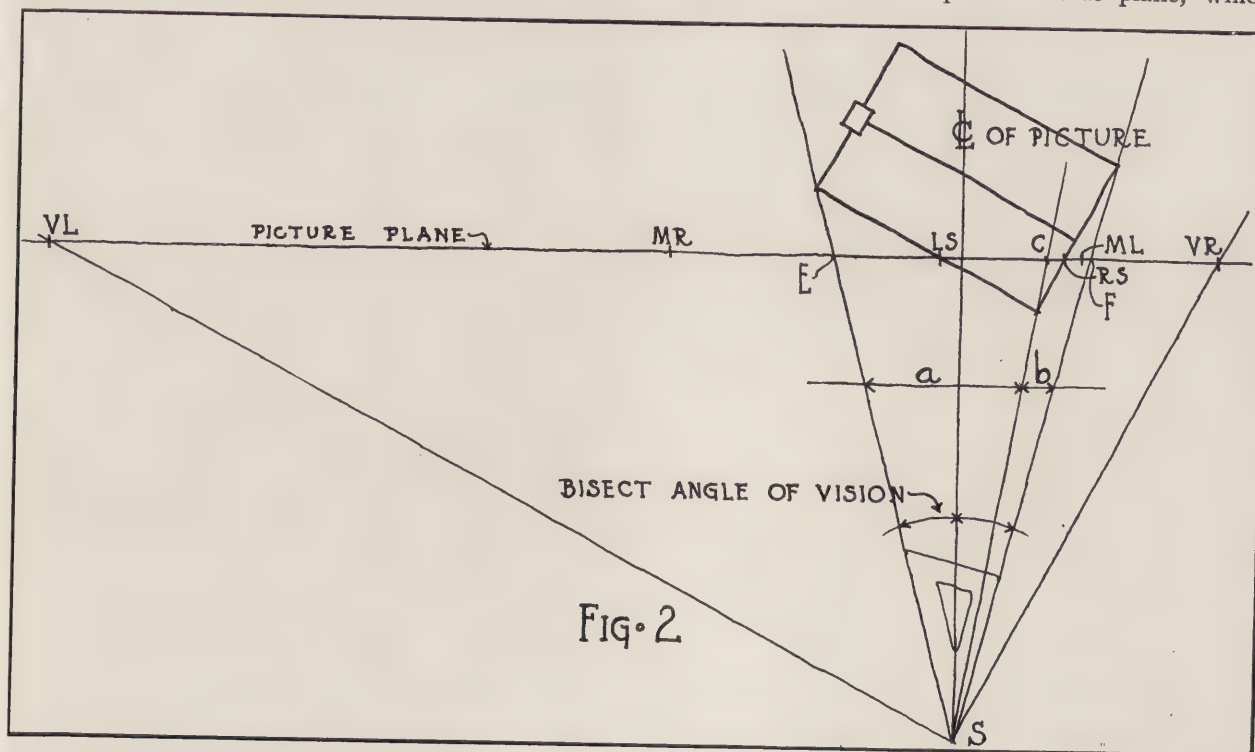
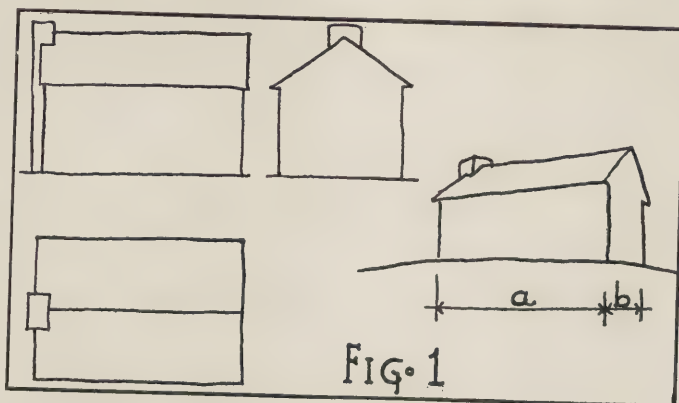
The ordinary method of procedure seems to be as follows. The building or object is set at an arbitrary angle to the picture plane and then the station point is located in front of a corner of the building. This is really a backward way of setting about things. A more logical procedure is to do things in the following order: first, decide how the finished picture should

look, by making a rough thumbnail sketch; second, find a station point from which the building will look like this sketch; third, find the center line of the picture; fourth, locate the picture plane; fifth, locate vanishing and measuring points. Then draw the picture.

This method can best be explained by assuming a simple problem which we can follow through in detail. In Fig. 1 we have a house which has a chaste rectangle for a plan and an orthodox gable roof. Also we have the thumbnail sketch which shows how we wish our perspective to look, and so the first step is accomplished.

Before we take up the second step we

must generalize a bit. A station point in common with any other point in space may be located by three co-ordinates, or dimensions, or conditions. In the case of a station point one co-ordinate is determined by the height of the eye above the ground. This confines the station point to a horizontal plane and it remains to locate the point in that plane, which





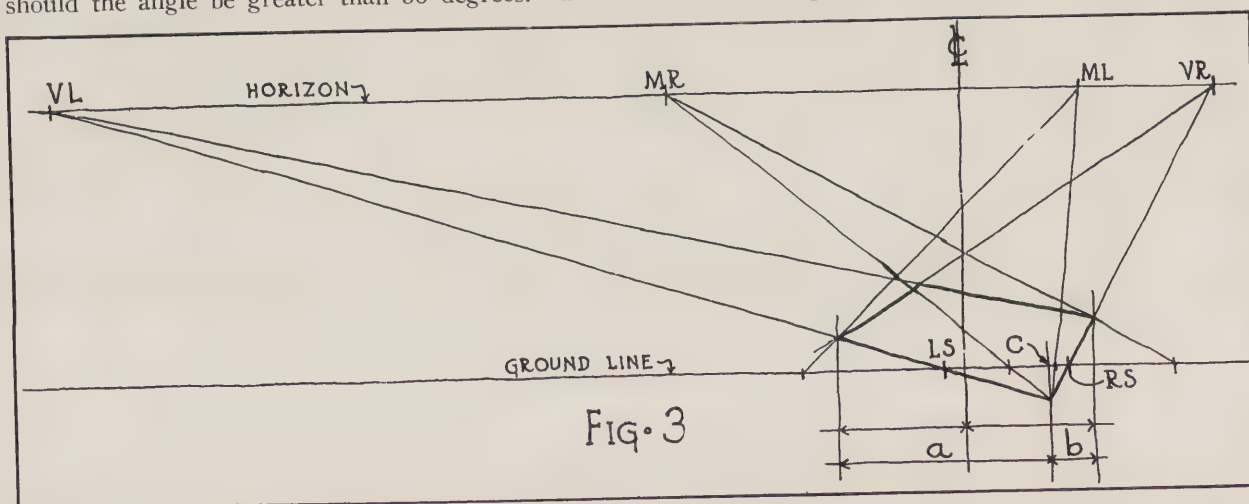
requires two co-ordinates or conditions. Obviously it would never be possible to find a point from which a building would look exactly like the preliminary sketch. The proper procedure is to pick two characteristics of the sketch which it is desired to preserve, and to translate these characteristics into two co-ordinates which will locate the station point.

Very often one characteristic will be the distance from the building to the station point, or the angle of vision at the station point, which is of course another way of expressing the same thing. Every drawing in perspective is distorted to a certain extent, and the greater the angle of vision at the station point the greater will be the distortion. When the angle is 30 degrees the distortion is scarcely noticeable, but when the angle gets larger than 30 degrees the distortion begins to show. For any one of a number of reasons the distance from the building to the station point may be increased and the angle of vision made less than 30 degrees, but rarely should the angle be greater than 30 degrees. This

sketch and the second step has been accomplished.

Third, we shall locate the center line of the picture. This is merely a matter of bisecting the angle of vision at S; but it is essential that this angle really be bisected. Distortion increases with the distance from this center line to the object pictured, and if the line from the station point to the near corner of the building is assumed to be the center line, distortion at one side of the picture may be several times as great as at the other. If the center line is found by bisecting the angle at S, distortion at the two sides of the picture will be equal and will be less noticeable. We shall therefore locate this center line, as in Fig. 2, by bisecting the angle of vision at S.

Now comes the Picture Plane, as the fourth step. This must be perpendicular to the center line, as in Fig. 3. It might have been drawn through the near corner of the plan but we placed it where we did to make the problem more general, and to illustrate another point. The size of the picture may



angle is assumed to be one which will include the geometrical or mechanical parts of the picture. Trees do not count.

A second characteristic which it is sometimes desired to preserve is the proportion of front and side of the building to be shown in the picture. Nearly always it is desirable to show more of one than the other and often in a fairly definite proportion. So let us assume in our problem that we wish to have the picture included in an angle of 30 degrees and have the front and side appear in the proportion of  $a$  to  $b$ . These will be the two co-ordinates by means of which we shall locate the station point.

The preliminary work is most easily done at a reduced scale, so lay out the plan, as in Fig. 2, at a convenient scale which we can assume to be one fourth the scale of the drawings from which the perspective will be made. Now use the point of a 30 degree triangle for a station point and shift it about until the sides of the triangle include the plan of the house, and lines from the corners of the house divide a line drawn across them in the desired proportion of  $a$  to  $b$ . When this has been done, we have found the station point from which the house will look as it does in the preliminary

be controlled by the location of the picture plane, and can be determined quite accurately by scaling the distance from E and F. We locate the picture plane perpendicular to the center line, either through a convenient corner on the plan or where EF gives us the desired width for our picture.

If you are one of the men who tacks his plan at the top of the board, you will now enlarge what we have drawn up to this point, four times, to the scale of the original drawings, then tack the plan in the proper place and proceed. However, if you are addicted to the perspective plan method, there are a few more things to be done.

Locate vanishing points VL and VR and their corresponding measuring points ML and MR. Note the points LS and RS where the left side and right side of the plan cut the picture plane. Project the corner from S to the picture plane at C. Now note beside each of these points its distance from the center line, using four times the distance on this diagram, which will be the proper distance for the final drawing. A quarter inch scale is convenient to use for this purpose, calling each division an inch instead of a foot. With so much done, this diagram is complete, and we are ready to start the drawing.

## THE SELECTION OF A STATION POINT

The beginning of the drawing is shown in Fig 3. Lay off the horizon and ground line and on the horizon locate the vanishing points, measuring points and center line of picture, using the distances found on the diagram. Continue the center line down to the ground line and lay off LS, RS and C on the ground line, using the proper distances from center line. Draw from VL through LS and from VR through RS. These lines should intersect on a vertical line through C, which intersection is the perspective plan of the corner of the house. This serves as a check on the accuracy of the drawing. From this point on, the process is the usual one, and when the drawing is finished, it will meet the requirements assumed in the beginning; that is, it will be included by an angle at the station point of 30 degrees and the end and front will appear in the desired proportion of a to b.

Sometimes it is desired to preserve certain other characteristics of a preliminary sketch. For example, as in Fig. 4, it may be that we wish to show a certain amount of the roof. This amount can be expressed as having a certain ratio to the height of the wall as  $c$  to  $d$ .

The problem is to find a station point from which the building will look this way, and to do so, we go to the front elevation and the plan. It should be evident that from any point along the line GH, the roof and wall will appear in the proportion  $c$  to  $d$ ; the exact point on GH is found by assuming a distance from the building to the station point, or by using any desired angle of vision, or by getting a desired proportion of front and side, as we did before.

After finding S, draw the center line, locate the picture plane, and proceed as before.

This same construction may be used when it is desired to show a certain amount of a dome above a cornice, or a certain amount of a spire or tower on a church.

Another condition might be that the designer or delineator or renderer wishes to have a vanishing point come at a certain point in a picture, as indicated in Fig. 5. This may be for purposes of composition or for some other reason, or simply because he thinks he would like it to be there. It takes a bit of juggling to get this just right but it can be done. Assume that the distance from the front corner of

the building to the vanishing point is the thing we wish to keep and this is KV in the figure.

Of course when we start we do not know the proper location for the picture plane. We know the distance KV, but not the location of V. So we assume L, making KL somewhat less than KV and draw LN parallel to the side of the building; then locate S on LN, assuming again a proposition of front and side or a distance from the building. After S is located we can find the center line of the picture, the picture plane, and determine V. Probably V will not come exactly in the place where we want it, and it will be necessary to make adjustments until it does. The remote vanishing point can be handled in a similar way in order to get any desired conver-

gence to the lines which are nearly parallel to the picture plane. Sometimes other problems will arise, but for one accustomed to working by these methods their solution will be just a matter of geometry.

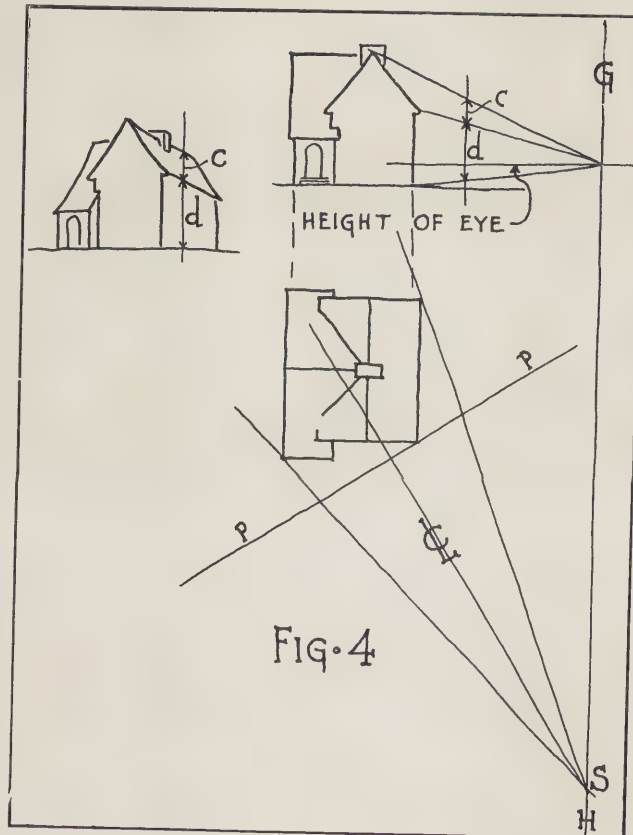
There are two other cases that deserve some consideration. Sometimes it is desired to know just how a projected structure will look from a certain point on a known piece of ground. The problem is simple. Make the preliminary diagram, as in Figure 2, right on the plot plan, using the desired point for the station point. Determine how much is to be included in the picture and find the center line of the picture. Then locate the picture plane perpendicular to this center line, and in a location which will give a picture of the desired

size or scale. It is now simply a manner of locating the necessary vanishing, measuring and other points and making the pictures.

The other case is the one in which it is desired to make a plaza, or court, a part of a picture, possibly showing only a part of a building. This involves making the plaza, or court, a part of the preliminary diagram, Fig. 2 again, and letting the center line be the center line of the whole picture; not aiming it at the building which is only a part of the picture.

To resume briefly, the following are the logical steps to take.

1. Decide how the building should look.
2. Lay out the building in diagram form at reduced scale, usually one fourth or one eighth the size of the picture and locate on this diagram the point from which the building will look as desired.





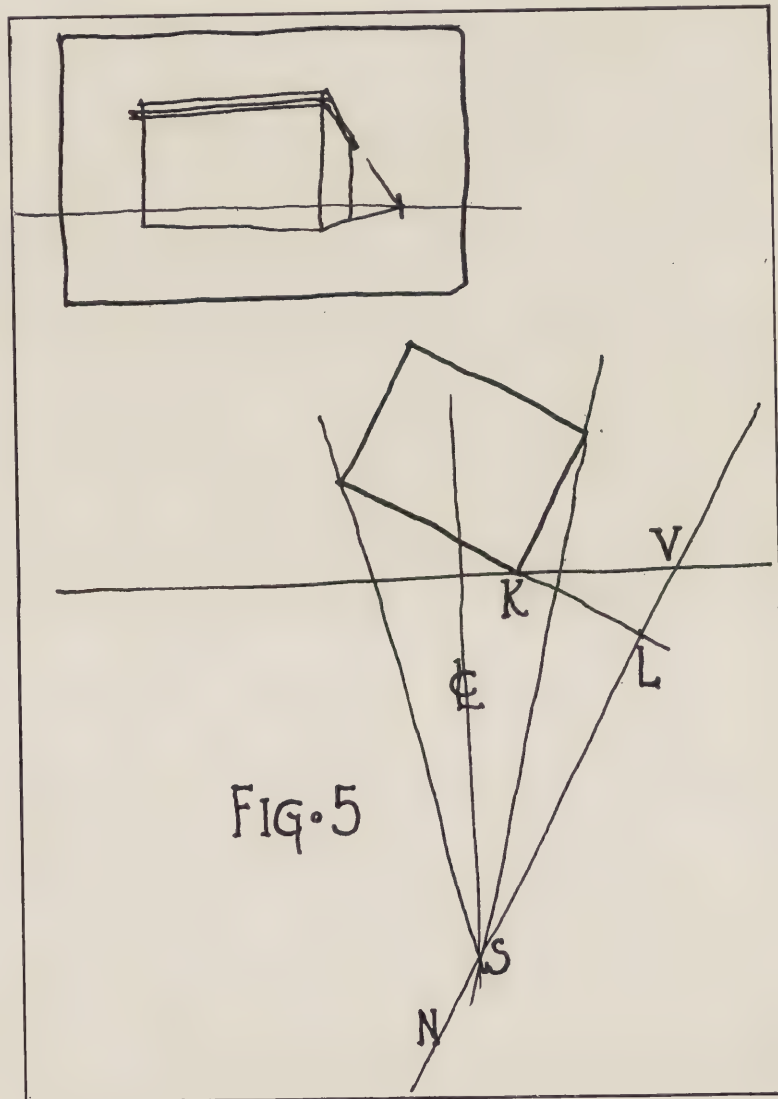
## PENCIL POINTS

3. Find the center line of the picture by bisecting the angle which will include all the picture.

4. Locate the picture plane, making it perpendicular to the center line. At this point the size of the picture can be controlled by making the picture plane nearer or farther from the station point.

5. Locate the vanishing points, measuring points, corner of the building and points where one or both

sides pass through the picture plane. Transfer these points to the horizon line of the final drawing and proceed to draw. The man who does much drawing in perspective will find that this method is good in practice as well as in theory. All of this preliminary work is done very quickly and roughly, much of it freehand, with only sufficient accuracy to suit the needs of the case. He will find that it will lead to results that will be consistently good.



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By **WILLIAM PAIN**, Architect and Joiner.

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L O N D O N :

Printed for the AUTHOR, and ROBERT SAYER, at the Golden Buck in Fleet-Street.

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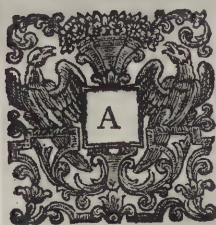




# P R E F A C E

T O T H E

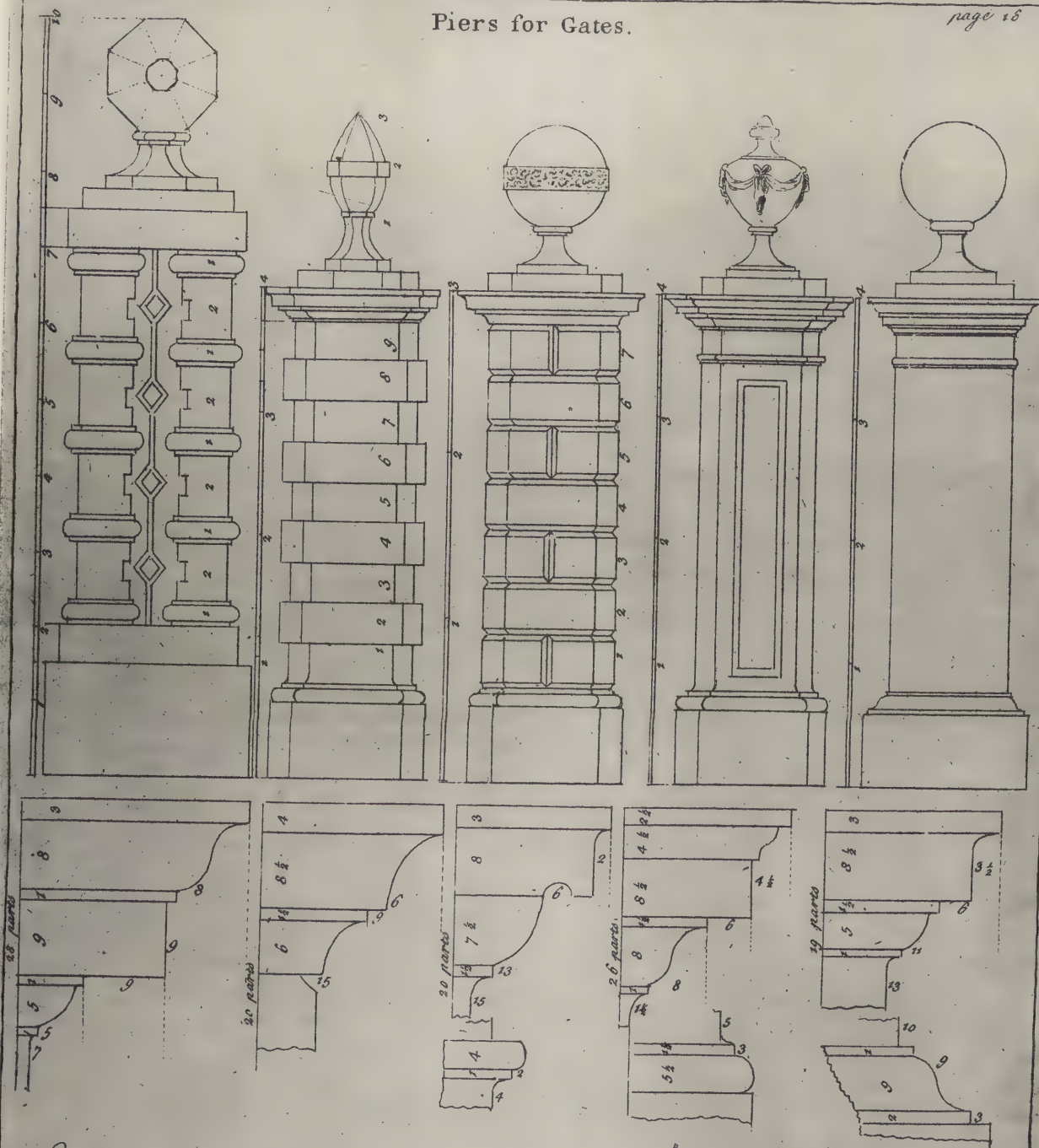
## R E A D E R.



S in all Things Order is to be observed, so especially in this excellent Art of Architecture it is requisite that every Part and Member have its right Order and due Proportion: There have been many Masters who with great Care and Industry have brought this Art to a great Perfection, among whom the famous PALLADIO deserves to be placed in the highest Rank by all judicious Artists; therefore for the Benefit of Workmen, and that it may be made more useful for all Artificers in Building and Lovers of this most noble Art, I have laid down the five Orders of Architecture according to PALLADIO by an intire NEW SCALE, to proportion the Orders to any given Height, and to find the Model or Diameter of the Column, with every Part of the Orders by the said Scale; and for the better understanding of which, the Reader is desired to take notice, that by the Model is signified the Measure of the whole Diameter of the Column: As for Example; Let the Diameter be twelve, fifteen, or eighteen Inches for the Model, to be divided into sixty Parts or Minutes, as may be seen by the Scale on the Diameter of the Column in Page 32, that Scale measuring every Member in the Order, which will be proportionable one to another; this dividing of the Diameter into sixty Parts or Minutes, must be used in all the Orders, in which I have, with my utmost Endeavours, rendered it very intelligible, with a great Number of other useful Things for the Benefit of Workmen.

Piers for Gates.

page 16



Five piers for Gates with scales and proportions for the Bases and Cornices of the piers the height of Each Cornice to be divided into as many parts as is figur'd at the Back of Each Cornice and these parts disposed to Each member as they are figur'd in height & projection. The height of the Balls and Vases above the Cornices may be one third of the height of the piers or one fourth of the piers height by the Scales up the side of the piers and the height of the Cornices to be one sixteenth part of the piers height &c. the height of plinths is two thirteenths of the piers height.



Vases.



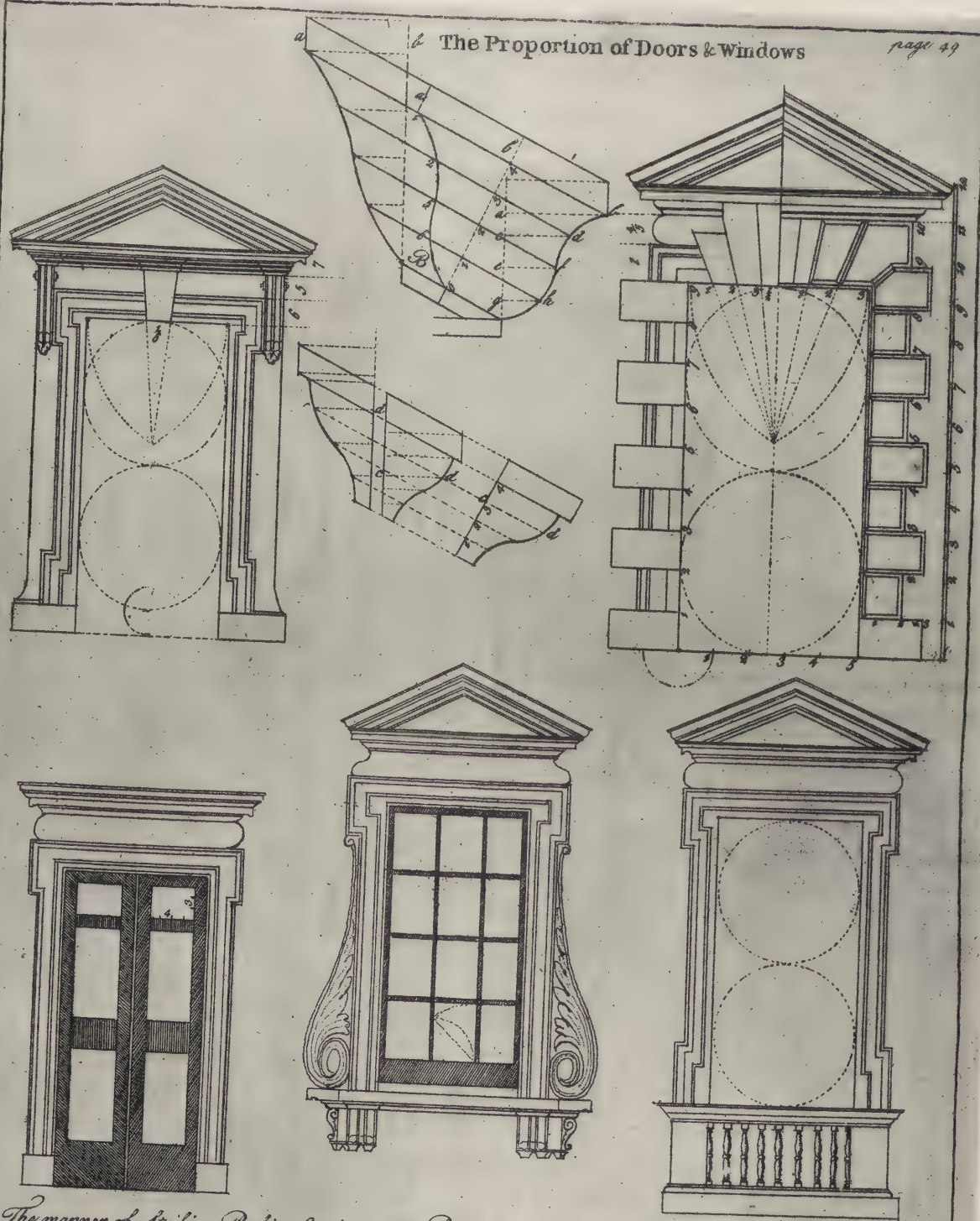
Vases for Piers, Parapet walls or to stand on Pedestals in Gardens.

When the intire height is fix'd on, which is at pleasure according to the place where they are to stand, the intire height to be divided into as many parts as is figur'd up the side of each Vase, & them parts to be dispos'd to each member as they are figur'd in height and projection.

The projection is from the Central lines.

a. and b. are two Stone Tables for Gardens or Grotto's, the given heights may be from 2 foot 4 inches to 2 foot 6 inches, and the heights to be divided into 64 parts or into 4 and one in 16 parts, and them parts dispos'd to each Member as they are figur'd in height and projection. c. and d. are two Fonts for Churches, & the height may be from 3 foot 6 inches to 3 foot 10 inches & to be divided into 48 parts, & them parts to be dispos'd to each Member as they are figur'd in height & projection, the projection is from the Central Lines, &c.





The manner of Striking Raking Cornices as at B. divide the height of the Raking mold o.4 into four equal parts, and draw the lines parallel with the Raking, then make the projections all equal as a b. then take the projections from the Level Cornices as a. b. c. d. e. f. g. h; set them on the Raking molding as a b. 1. 2. 3. 4. 5. 6 that will give the Curve of the molding, and for upper Returnid molding, Set on the same parts square from the Back, to meet the Raking Lines, and that will be the Curve of the Returnid molding, then at those points tack in Nails, and Bond a thin slip to the Nails, and mark it by, that will be the Curve Line or faces of the moldings of hear is three doors and two windows which is plain by the parts and figures. — The Length of the Architrave for 3 margents of doors divide the width of the door into 9 parts and give one to the margent and the Bottom Raile and Lock Raile double the margent.



*Cornices for Rooms or Eves of Houses or any place Required.* page 59.



25 Cornices for Rooms or Eves of Houses with the Grose Measures all figured; how many parts Each Cornice is to be Divided into, and then parts disposed to each Member, as they are figured in height and projection. To find the Grose measures of the Cornices in height divide from the Floor to the Ceiling into 15 parts, take one for the Cornice, or divide into 16 parts, one is the Cornice; or if the height be divided into 35 parts take two for the Cornice and in some Cases the height may be divided into 18 parts then take one for the Cornice. any of these Grose Measures may be used at pleasure according to the Places they are Required to set on the Projections, drop a Plumb Line as a, b, then set Back 2% and 4% then drop one at c, set Back 2% and so for all the rest which is plain to Inspection.





## THE RENDERINGS OF AN EARLY MASTER

PART II—SELECTIONS FROM THE LITHOGRAPHS OF DAVID ROBERTS, R.A.  
TO ILLUSTRATE THE PORTFOLIO OF "SKETCHES IN SPAIN"

*By Kenneth Clark*

SELECTIONS FROM DAVID ROBERTS' "Sketches in Spain" have been made to illustrate the interesting contrast between the technique of Roberts in his "Egypt and Nubia" lithographs (published in the January issue of *PENCIL POINTS*) and the examples of his sketches made in Spain. The Spanish sketches are a later series than the "Egypt and Nubia" and show a decided difference in the manner of rendering and in the general treatment of the subjects. The severe but beautiful rendering of the Egyptian antiquities gives way to the more romantic but no less beautiful technique of the present examples—full of life and color and drawn with a freer but no less truthful line. These plates express the joy of Spanish life and scenes just as the more severe rendering of the Egyptian series truly expresses the dignity and "in-the-pastness" of the Egyptian monuments.

The lithographs in the Spanish series were drawn on the stone by Roberts himself and this, of course, accounts for much of the difference in technique as the Egyptian series was lithographed by L. Haghe after sketches made "on the spot" by Roberts. The differences are marked and very interesting; both men were masters of line, each had a distinctive method—Haghe's precise, accurate and almost

microscopic in rendering of detail and texture,—Roberts' free, more pictorial and more truly artistic. Where Haghe is absolutely definite in his expression, Roberts shows by his eliminations how well he realizes the essential points and the "bones" of the picture which he dresses to a finished creation with great talent and ability. The architectural sense in the present series is wonderfully expressed and it proves Roberts' remarkable feeling for the subjects, which is doubly remarkable in that he was not an architect nor had he any special training in that branch of art. Primarily a portrait painter, with an early foundation in scenic art, he has produced some true architectural renderings that should be rated among the finest of their type. The few examples shown are merely a suggestion of the wealth of material included in the portfolio of Spanish Sketches. Complete sets are hard to find except in the collections of large public libraries. It would repay anyone interested to dig them out and give them careful study—particularly worthy of consideration will be found his sense of composition, his spacing of the picture space into general divisions and the aerial perspective or sense of distance planes that he handles so admirably and that do so much to give a subject realization and depth.





MARKET PLACE, SEVILLE  
HAND COLORED LITHOGRAPH BY DAVID ROBERTS, R. A.





REMAINS OF A ROMAN BRIDGE ON THE GUADALQUIVIR—CORDOVA  
HAND COLORED LITHOGRAPH BY DAVID ROBERTS, R. A.





PART OF THE CATHEDRAL—BURGOS  
HAND COLORED LITHOGRAPH BY DAVID ROBERTS, R. A.



THE RENDERINGS OF AN EARLY MASTER



CHURCH OF SAN JAGO

HAND COLORED LITHOGRAPH BY DAVID ROBERTS, R. A.





GRANADA

HAND COLORED LITHOGRAPH BY DAVID ROBERTS, R. A.

# DRAFTING ROOM PRACTICE

## PART IV—ALTERATION WORK

*By Harold D. Way*

THE METHOD OF PROCEDURE to be followed in the use of the checking list depends upon the nature of the work and is best determined by the one using the list himself.

It is evident that to wade through the list out on the job, item by item, would be laborious and wasteful of time. Furthermore, it does not seem practical to compile a shorter list designed for a particular type of construction. The exotic element of construction is often present and this is the very thing one is most apt to be tripped on. For this reason a comprehensive checking list is offered here and it is consequently long and cumbersome.

As a reminder, a 'self-starter' to set the mind in action before going out on the job, it should repay amply for the time expended in browsing through it.

How often one has the experience of having a clear mental picture at the building which fades into a confused blur in the drafting room a few hours later. The second visit, however, is like reviewing any subject on a second reading. It is just after the first visit that the checking list will prove of greatest value. One has then sufficient acquaintance with the job to be able to pick out those items that apply and call for particular attention. A check might be made or notes taken of such items.

It will be observed that a complicated classification has not been attempted, neither has a perfect and

logical classification been aimed at. The amount of research already involved in the preparation is considerable. While a more logical arrangement might be desirable, it is not essential for a tryout because the list is used only as a reminder and not as an index.

A summary of data to be obtained from the owner is not included here but this should not be overlooked. Its application is not confined to alteration work, of course, but will be generally useful.

If the seriousness of the alteration job appears to have been emphasized too strongly, it calls for no extended apology. The alteration job is not the place for the inexperienced, neither is it the place for an aloof or an elegant manner. No work makes the architect less a gentleman in the elegant sense of the word and perhaps more a builder in materials than this class of work. For instance, the explanation of the development of the usage of the walking stick according to Veblen in his "Theory of the Leisure Class," is that the gentry carried it as a symbol that the possessor was not required to keep his hands free for manual labor. While manual labor is not required of the architect, the walking stick seems, through its symbolism, just a little out of place on the alteration job and this in spite of the fact that it provides an elemental poking device for testing the soundness of materials.

## CHECKING LIST FOR AN ALTERATION JOB

*(Continued from the February Issue)*

NOTE: Asterisk indicates items to be checked at job

### SOLID STEEL WINDOWS

- \*MAKERS of present windows.
- \*DETAIL of section.
- \*DIMENSIONS.
- \*TYPES.
- \*HARDWARE, condition of.
- SASH OPERATOR.
  - \*MANUAL.
  - \*POWER.
  - \*LOCATED from what point.
- \*VENTILATING SASH.
- \*CASEMENTS opening in.
- \*CASEMENTS opening out.
- DETAIL showing complete condition.
  - \*HEAD section.
  - \*JAMB section.
  - \*SILL section.
- \*CLEANING and removal of paint and rust, see painting.
- \*GLAZING and puttying, see glazing.

### HOLLOW METAL WORK

- \*MAKES of present windows.
- \*LABELED doors and windows.
- \*DIMENSIONS.
- \*DETAIL of section.
- DETAILS showing complete condition at
  - \*HEAD section.
  - \*JAMB section.
  - \*SILL section.
- \*NUMBER of lights in doors.
- \*NUMBER of lights in windows.
- \*DETAIL of paneling.
- \*DETAIL of trim and mouldings.
- \*DETAIL of door frames.
- \*PAINTING, see painting.

### VAULTS

- \*MAKE note of special features of old work.
- \*DIMENSIONS of old work.
- \*STATE of repair.
- \*SIZE of lights.
- \*TYPE of lights.



## PENCIL POINTS

### VAULTS (*Continued*)

PERMITS required for new work.  
CUTTING and patching by other trades.  
SIZE allowed by city ordinances.  
LOADS allowed per square foot.  
INSPECTION by specialist for special vaults.

### CARPENTRY

#### STRUCTURAL FRAMING.

- \*JACKING up to take care of settlement.
- \*NOTE of weakened framing.
- \*ADDITIONAL posts, columns, piers.
- \*GIRDER reinforcement required.
- \*NOTE of dry rot.
- \*ADDITIONAL ventilation required.
- \*MAKE weather-tight at sills.
- \*ANCHORING new to old sills.
- \*GENERAL type of construction.
- \*DIMENSION of timbers.
- \*KIND of wood with relation to long spans.  
STRUCTURAL bearing not to rest on.
- \*NON-BEARING partition.  
ADDITIONAL bridging.
- \*STRENGTHENING framing to carry concrete fill  
and tile floors.  
BEVELING beams for cinder concrete fill.
- \*DIRECTION of beams.
- \*BLOCKING up beams that have been beveled concrete.
- \*CUTTING and patching for other trades.
- \*THICKNESS of partitions.
- FURRING for pipes in old building.
- \*DETAIL of trusses in special cases.

#### EXTERIOR WOODWORK.

- \*STATE of repair.
- \*DETAIL of mouldings.
- \*DETAIL of beveled siding.  
NEW moulding to match old work.  
REPAIRING old work.
- \*CANVAS deck.
- \*EXTERIOR shutters to be repaired.  
EXTERIOR shutters to be removed.
- \*STORE front, detail of sections.  
STORE front, made by whom.
- \*STORE front, dimensions.
- \*DETAIL of bead, jamb and sill of windows.
- \*STATE of repair of windows.
- \*NEW sash required.  
NEW muntins added to old sash.
- \*NEW sash cord or chains and pulleys.
- \*STORM sash.
- \*SCREENS.
- \*WEATHER strips required.
- \*RECAULKING of old frames.
- \*EXTERIOR doors, size and thickness.
- \*EXTERIOR doors, paneling.
- \*EXTERIOR doors, kind of wood.
- \*EXTERIOR doors, state of repair.
- \*EXTERIOR doors, solid or veneered.

#### METAL COVERED WORK.

- \*LABELED work.
- \*SIZE and thickness of doors and sash.

\*KIND of metal.

#### INTERIOR WOODWORK.

- \*NOTES on kinds of wood throughout.
- \*STATE of repair.
- \*DETAIL of mouldings.  
NEW work to match old mouldings.
- \*REPAIRING and piecing required.  
CARVING to match old carving.
- \*DOORS, size and thickness.
- \*DOORS, detail of paneling.
- \*DOORS, veneering.
- \*DOOR frames, rabbeted or stops applied.
- \*DOORS rehung.
- \*WOODWORK to be used elsewhere.
- \*DETAIL and dimensions of dressers.
- \*DETAIL of mantels.
- \*KIND and condition of saddles.
- \*DETAIL of stairs.
- \*DO stairs require wedging up.
- \*STAIRS, state of repair.

#### FINISHED FLOORING.

- \*KINDS of wood.
- \*WIDTH of face.
- \*PATTERN of parquet.
- \*STATE of repair.
- \*PIECING out.
- \*SHIM for new floors.

#### HARDWARE.

- \*MAKE of hardware.
- \*TYPE of hardware.
- \*KINDS of material.
- \*KINDS of finish.
- \*STATE of repair.  
FURNISHED by owner or allowance.  
CREDIT for old hardware used.

#### CORK, LINOLEUM AND RUBBER FLOORING.

- \*STATE of repair.
- CLEANING.  
NEW to match old work.
- \*DESIGN.
- \*REPLACING and patching.
- \*COLOR.
- \*FOR treads of stairs.

### PAINTING AND GLAZING

#### PAINTED WORK.

- \*CONDITION of painted surfaces.
- \*WORK already painted.  
BURNING off.  
SCRAPING.  
SANDPAPERING.  
WASHING and "cutting" surface.  
THINNED paint for first coat to furnish oil for  
chalky paint.
- PUTTYING.  
\*STRUCTURAL steel, cleaning, removing rust.
- \*IRON work, cleaning, removing scales and rust.
- \*PIPING and radiators.  
KIND of paint.  
PRIMING new work.

#### VARNISHED WORK.

- \*WORK already varnished.
- \*CONDITION of varnished surfaces.  
REMOVING varnish.

## CHECKING LIST FOR AN ALTERATION JOB

### PAINTING AND GLAZING (*Continued*)

- WASHING and "cutting" surface.
- SANDPAPERING.
- REMOVING varnish to bare wood.
- EVENING color by staining bare wood.
- BLEACHING wood.
- \*NUMBER of coats.

#### STAINING.

- STAINING of new to match old work.
- BLEACHING and staining.
- \*COLOR of old work.

#### WAXING.

- \*NOTE of old surfaces waxed.
- ENAMEL.
- \*WORK already enameled.
- \*CONDITION of enamel.
- WASHING and "cutting" surface.
- SANDPAPERING.
- \*NUMBER of coats required.

#### WALL FINISH.

- \*NOTE of finish on old plaster.
- \*CONDITION of paint.
- \*CONDITION of paper.
- \*KIND of paint.
- \*SIZING old walls, kind of size.
- \*SIZING new plaster, patches, etc.
- \*CUTTING out cracks and pointing.
- \*SMOOTHING wall surfaces.

#### GLAZING.

- \*KINDS of glass.
- \*BROKEN glass to be replaced.
- \*NEW glass to match old glass.
- \*CUTTING glass for smaller panes.
- \*REPUTTYING.

### FURNISHINGS

- \*DIMENSIONS of lockers.
- \*DIMENSIONS of furniture as required.
- \*DIMENSIONS of seats and benches for storage and trucks.

### PLUMBING

- COMPLY with local laws, rules and regulation.
- PERMITS and payment of fees.
- NOTIFY architect of disagreement between old work and old work as shown on drawings.

#### GUARANTEE.

- CUTTING and patching required by other trades.
- CUTTING and patching required of other trades.

#### EXCAVATION—See Excavation.

- \*EXTENT of excavation required for street connections.
- \*EXTENT of trenches required inside of building.

#### MATERIALS.

- \*GALVANIZED WT. I, where used.
- \*STEEL, where used.
- \*CAST Iron, where used.
- \*EARTHEN ware, where used.
- \*VITRIFIED tile, where used.
- \*LEAD, where used.
- \*BRASS, where used.
- \*NICKEL plated brass, where used.
- \*NOTE condition of materials.
- \*AGE of installation.
- \*OBTAIN specimen of water pipe.

- \*OLD pipe and fittings to be used.
- \*OLD materials to be replaced.

#### DRAINAGE SYSTEM.

- \*COMBINED sanitary and storm water sewers.
- \*SEPARATE sanitary and storm water sewers.
- \*SANITARY sewers only.
- \*PRIVATE sewage disposal system, investigation by specialist.
- \*PUMPING system, type, height to pump, capacity, kind of power, automatic.
- \*"BACKING UP" from mains, data on.
- \*PROBABILITY that house sewer has been clogged with roots.
- \*UNIT price for relaying house sewer.
- \*DIAGRAM of layout of old system with sizes and materials noted.
- \*TRAP pit, size and kind of cover.
- \*KINDS of supports and hanger.
- NEED for acid proof piping.
- \*BACK-WATER trap.
- \*EMERGENCY gate valve.
- \*OIL separator, type, size.
- \*FRESH air inlet, type and location.
- \*MANHOLE covers, size and kind of materials.
- \*TRENCHES, size.
- \*TRENCH covers, size and kind of.
- \*CESSPOOLS, size, design and construction.
- \*SUMPS, size, design and construction.
- \*CATCH basins, size, design and construction.
- \*CISTERNS, size, design and construction.
- \*DO all drains have water supply.
- \*OUTSIDE leaders, design, size, condition of.
- \*DEFECTIVE leaders indicated by spalling of masonry.
- \*EVIDENCE of electrolysis at connections of sheet metal with cast iron.
- \*NEED for "splashers" under "boot" of leaders.
- \*OLD piping to be concealed.
- \*SUFFICIENT headroom.
- TESTS in connection with old work.

#### WATER SUPPLY SYSTEM.

- \*MUNICIPAL water supply.
- \*DEEP well water supply.
- \*ARTESIAN well water supply.
- \*RAIN water—cistern.
- \*PRESSURE tank.
- \*STORAGE tank.
- \*PUMPS, capacity, type, kind of power, automatic.
- \*REDUCED pressure system.
- \*DIAGRAM of layout of old system with sizes.
- \*SUFFICIENT headroom.
- \*EXPOSED piping to be concealed.
- \*CONCEALED piping to be exposed.
- \*DOES old work completely drain.
- \*DIAGRAM layout of cold water system with sizes.
- \*DIAGRAM layout of fire lines with sizes.
- \*DIAGRAM layout of hot water system with sizes.
- \*SIZE of street connection.
- \*WATER tight sleeve in foundation wall.
- \*DISTILLING apparatus, data investigation by specialist.



## PENCIL POINTS

### PLUMBING (*Continued*)

- \*FILTRATION system, data, investigation by specialist.
- \*DATA on water heater for hot water system.
- \*SIZE of flue or vent for water heater.
- \*CAPACITY of hot water storage tanks with special reference to use of showers.
- \*DIMENSIONS of fire hose cabinets, reels, racks.
- \*WATER softening apparatus, data, investigation by specialist.

#### TESTS.

### PLUMBING FIXTURES.

- \*TYPES and number of each.
- \*MATERIALS.
- \*DIMENSIONS.
- \*CONDITION
  - OLD fixtures to remain.
  - OLD fixtures to be reset.
  - NEW fixtures to be furnished and installed
- \*CUT-OFF valves required.
- \*NEW tanks, seats, faucets, et cetera, required.
- \*OLD fixtures to be put in working order.

### INSPECTION AND SURVEY BY SANITARY ENGINEER.

### HEATING, OIL BURNING EQUIPMENT AND VENTILATION

#### HEATING

- CUTTING and patching required by other trades.
- CUTTING and patching required of other trades.
- \*TYPE of heating system.
- \*DATA on steam supply from central heating plant.
- \*CAPACITY of coal room.
- \*BOILERS, make, manufacturer's number, type, number dimensions.
- \*ARRANGEMENTS for operation of boilers, independently.
- \*WATER level of boilers.
- \*CONDITION of boilers.
- \*TYPE and condition of covering of boilers.
- \*SETTING of boilers.
- \*ASH pit.
- \*MECHANICAL stoker.
- \*FLUE, dimensions, clean out door.
- \*THERMOSTATIC control, location, type, make.
- \*TRENCHES, dimensions, trench covers.
- \*BLOW off cock, drainage.
- \*DIAGRAM layout of piping with size.
- \*DRAINING of entire system.
- \*REMOVAL of "pockets" in piping.
- \*PIPE supports and hangers.
- \*SLEEVES and flanges.
- \*RADIATORS, sizes, make, type.
- \*COAL handling, devices for.
- \*ASH handling, devices for.
- \*PIPE covering, type and condition.
- \*PAINTING.
- \*INSPECTION and survey by heating engineer.

### OIL BURNING EQUIPMENT

- \*SYSTEM to comply with authorities having jurisdiction.
- \*CURB box and fill pipe, location of.
- \*TANK, capacity and location of
- \*VENTS, location of.
- \*BURNERS, type, make, minimum dimensions required for working space.

- \*MOTORS, current required for.

INSPECTION and survey by heating engineer.

### VENTILATING.

- \*TYPE of System.
- \*VENTS, size of.
- \*GRILLES, size, material of.
- \*CURRENT required by fans.
- INSPECTION and survey by engineer.

### ELECTRICAL WORK

#### GENERAL.

- CUTTING and patching required of other trades.
- CUTTING and patching required by other trades.
- COMPLIANCE with all laws, rules and regulations.
- \*NUMBER of amperes permitted on branch lighting circuits by local regulations.

#### CURRENTS.

- \*LIGHTING current, alternating or direct.
- \*POWER current, alternating or direct.
- \*VOLTS, cycles, phase, two or three wire.
- \*SERVICE over head.
- \*SERVICE underground.
- TEMPORARY lighting, how paid for.
- \*TRANSFORMERS.
- \*TRANSFORMER room.

#### CONDUIT.

- \*RIGID.
- \*FLEXIBLE.
- \*KNOB and tube.
- \*CONCEALED or exposed.

#### WIRING.

- \*TWO wire.
- \*THREE wire.
- \*SERVICE switch, location type.
- \*METERS, location.
- \*SWITCH board, type, make, size, location.
- \*DISTRIBUTION panel boards, type, make, size, location.

#### OUTLETS BOXES.

- \*TYPE.
- \*SUPPORTS for fixtures.

#### SWITCHES.

- \*TYPE.
- \*CIRCUIT.
- \*LOCATION including height above floor.

#### BELL SYSTEM, ET CETERA.

- \*MOTOR generator.
- \*BELL ringing transformers.
- \*BATTERY.
- \*RECTIFIES.
- \*BELLS, type and location.
- \*CONTROL and annunciators.
- \*BURGLAR alarm system.
- \*CALL bell system.
- \*FIRE alarm system.
- \*TIME clock system.
- \*WATCHMAN recorder.
- \*TELEPHONE.

INSPECTION and survey by Electrical Engineer.

NOTE: General notes on and inspection and survey by specialists on:

- ELEVATORS.
- REFRIGERATION Plant.
- SPRINKLER system.
- VACUUM cleaning system.
- ET CETERA.

PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





OPAQUE WATER COLOR SKETCH BY GERALD K. GEERLINGS

*On terra cotta color charcoal paper size 9 3/4" x 12 1/2"*

*Octavius' Arch, Rome*



RENDERING IN GOUACHE BY ADOLPH TREIDLER

*Size of Original 18" x 24"*

*Residence for Mrs. Clyde Carr, Lake Forest, Illinois*

*H. T. Lindeberg, Architect*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR



RENDERING BY A. MAGNANTI, CEILING OF THE GREENWICH SAVINGS BANK, NEW YORK.  
YORK & SAWYER, ARCHITECTS



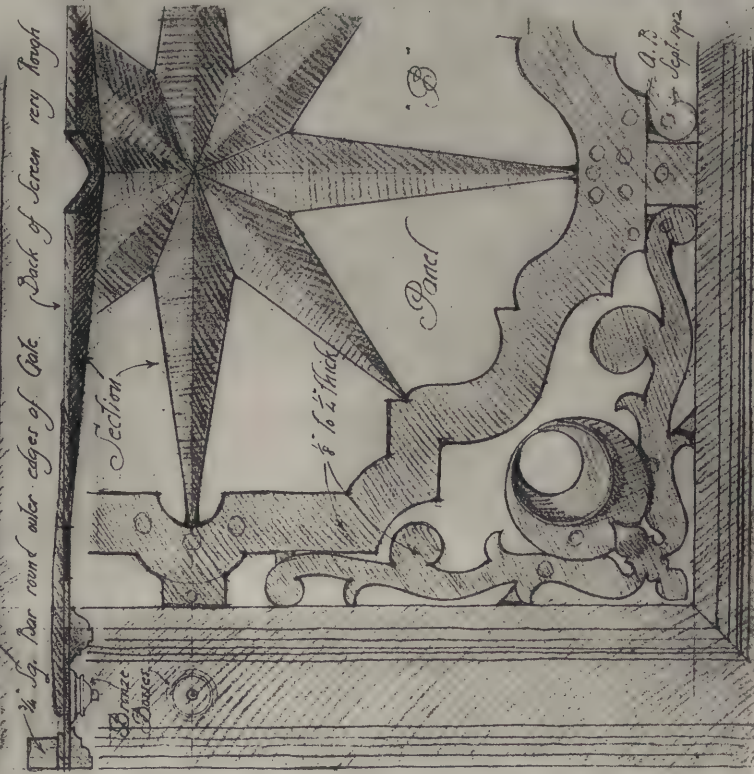
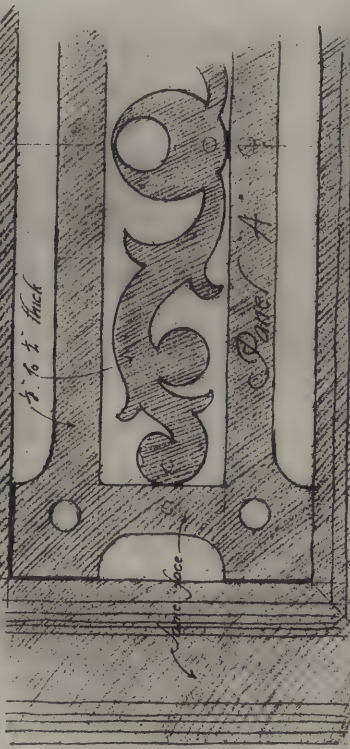
PLATE IX

VOLUME VII

NUMBER 3

*The original of the drawing shown on the other side of this page was made at the scale of three quarters of an inch to the foot and rendered with water color to show the decorative scheme for the ceiling of the Greenwich Savings Bank. The detail was emphasized with Chinese white.*

WROUGHT IRON SCREEN • SIENA CATHEDRAL  
DETAILS



MEASURED DRAWING—WROUGHT IRON SCREEN TO CHAPEL OF ST. JOHN-BAPTIST—SIENA CATHEDRAL  
BY ALAN BINNING

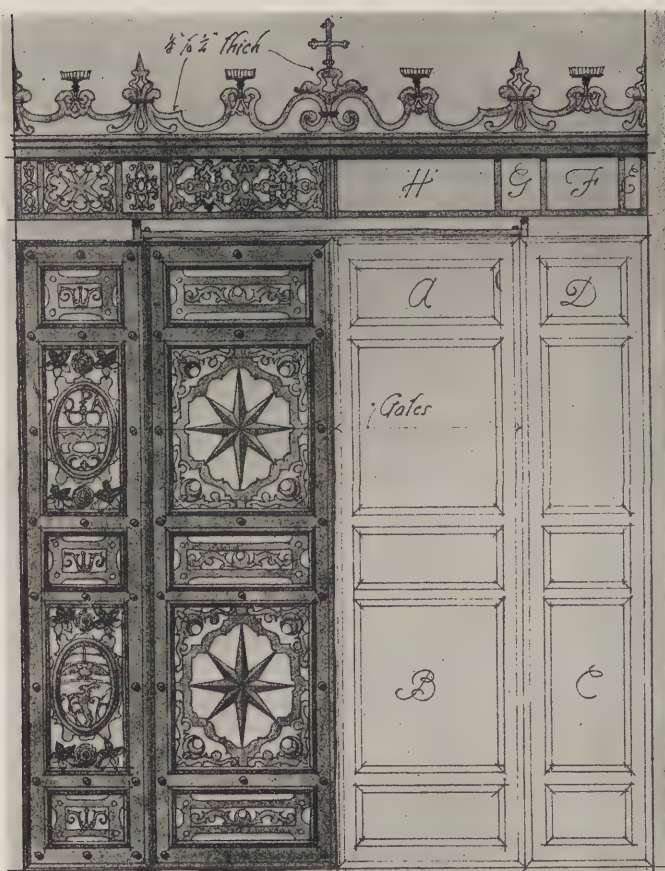




PLATE X

VOLUME VII

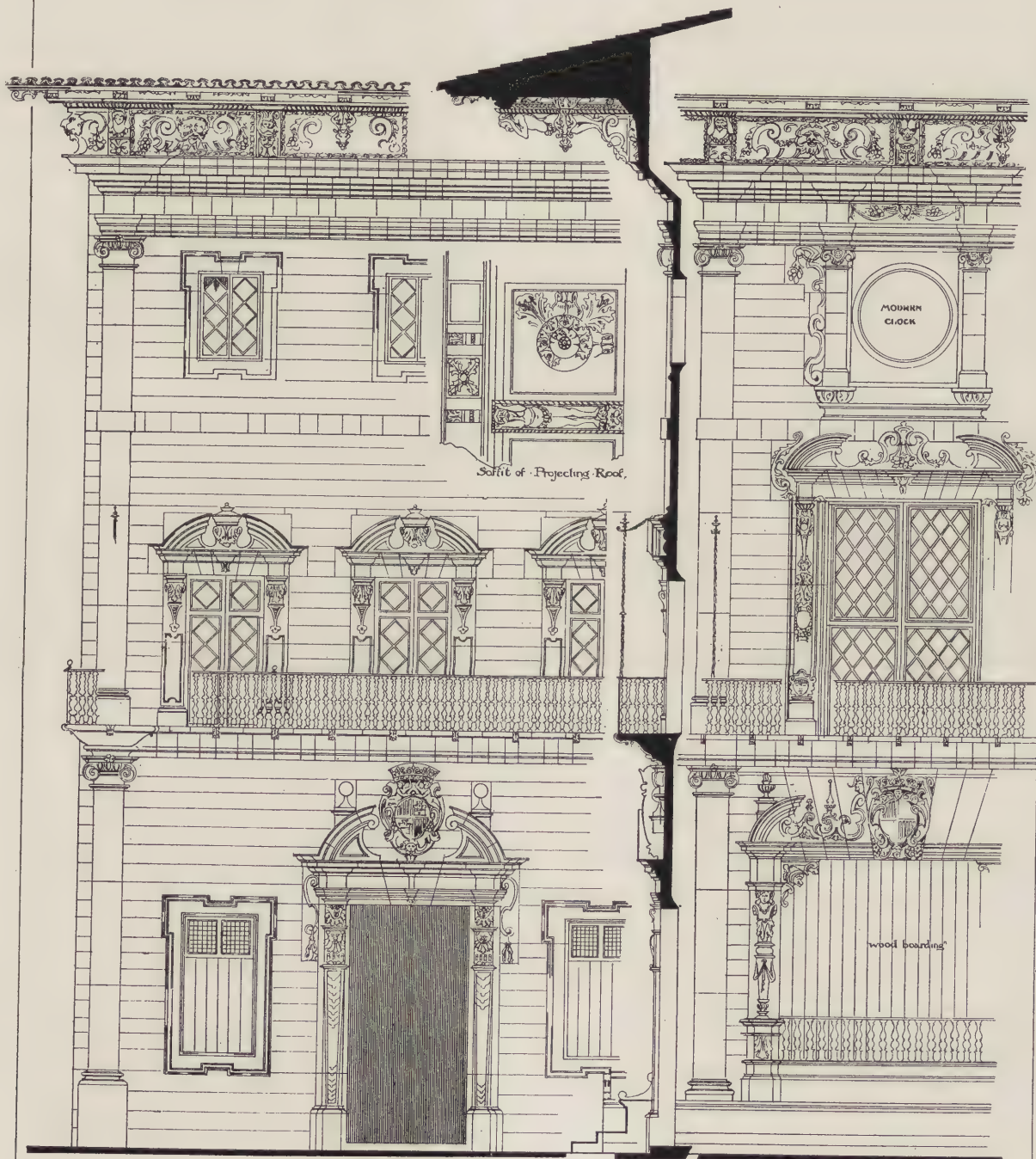
NUMBER 3



KEY PLATE TO WHOLE SCREEN, SIENA CATHEDRAL

• PALMA • MAJORCA •

Casa Consistorial built of Yellow Stone.  
with Projecting Cornice of Dark Wood



Part Elevation of Façade with Section

Scale of 10 5 0 5 10 15 20 25 feet

RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN

A PLATE FROM THE WORK BY ANDREW N. PRENTICE



PLATE XI

VOLUME VII

NUMBER 3

*This building dates from the end of the XVIth Century and is chiefly remarkable for its projecting wooden cornice, divided into compartments, and supported at intervals by long horizontal caryatides, carved to represent grotesque figures of men and women. The arms of the State of Palma appear over the doorways, between which is situated a large opening, or window, at present boarded up, which was used at one time for the sale of lottery tickets. On this plate will be found measured details of the various parts of the facade. The iron balustrade of the first floor has a rich effect which is very simply obtained by each of the balusters being cut out of a single sheet of iron about two eighths of an inch thick.*

# PENCIL POINTS

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### MARCH, 1926

#### 59th CONVENTION OF THE A. I. A.

THE 59TH CONVENTION OF THE American Institute of Architects will be held in Washington, D. C., from May 5th through May 7th, in the Chamber of Commerce on Lafayette Square. Notable men will address the convention and the delegates will have opportunities for discussion of subjects upon which there are divergent opinions.

Chapters should be warned that there is a possibility of some new policies being inaugurated and of some old ones being modified. The delegates who are coming (and as many members as possible who are not voting delegates) should know their Chapter's mind and be ready to discuss "The Small House Service Bureau," "The Scientific Research Department," "The Structural Service," "State Registration and Architectural Education," "Significance of the Fine Arts," "Architecture and the Public," "The Proposed Development of the Octagon Property," "The Plan of Washington," and "The Proposed National Department of Public Works". The Convention will consider also the raising of dues, etc., and the election of new Officers and other Directors.

The Washington Hotel will be official headquarters.

#### THE ARCHITECTURAL SENSE

TO THE EDITOR OF PENCIL POINTS:  
Dear Sir:—

May I take the liberty of placing before you my thoughts in connection with your inquiry as to what is generally termed as "Architectural Sense and its place in the life of a draftsman or Architect."

The "Architectural Sense"—what is it? Webster defines an "Architect" as a chief builder, a contriver, and "Architecture" pertaining to building sense, is a faculty by which external objects are perceived.

Now, what is the answer to these two definitions? Suppose we change the words, "Architect, who is a chief builder" to "Designer" so as to fit in, to a degree, the Draftsman, as he is the one we want to discuss. Therefore, the "Architectural Sense" of a Designer is his ability to perceive the building as it is to appear when it is finished, while he is designing. I believe it is safe to say that there are many designers who are capable of doing this, but, on the other hand, there are so many who never see the building during its erection, and they, therefore, never really attain the "Architectural Sense."

Again, there are a great many designers who allow themselves to be carried far away from the limits of the needs of a project by the dream of what they think they would like to see built. I recently heard Mr. Cass Gilbert say that he believed that the best architecture designed

was never built, because it always remained on paper, as the funds available would not meet the design. This is certainly true in a certain sense, but still, if the result of the completed building with the funds available, is a success, it cannot be denied that it is the best.

Getting back to the draftsman and how he selected the Architectural Profession. I believe if you ask the average draftsman this question, nine out of ten will not be able to tell you exactly why he selected Architecture as a profession. I believe he will answer, just as I should, that he doesn't know, he just sort of drifted into it. He simply started, found it fascinating and it just urged him on. I further believe that at the time of starting he never had the "Architectural Sense", nor the idea that he would develop to be the Michael Angelo of the Age. I believe that any that might have such an idea, have failed entirely, with the exception, possibly, of sons of successful architects, and we eliminate them from this entire discussion. Why? because the profession of Architecture has so many sides, that one simply has to develop and push one's self into the place best fitted for him.

For instance, take the young man starting out. He enters as an office boy and if he is really interested in Architecture, he is awed by the architectural terms etc., that he hears continually. I can remember when I started that I often found myself wondering if and how long it would take me, to learn all the names of the mouldings of the Corinthian Order. Would I ever be able to place my hands at a distance of 12", 16", 18" without a rule and come as close to the desired dimensions, as the head draftsman was able to do! I am sure that I never, at that time, had the "Architectural Sense," nor did I expect to develop to be a great architect.

When I conquered these, I wondered when I would be able to understand the terms of the different parts of a building on plans and in specifications. When I started Beaux Arts problems, the Ateliers fascinated me, and when I received my first "mentioned place," I felt great and dreamed of the Paris prize—still, I wondered if I would ever get to the point of trying for it. But, in later years, I drifted into the administrative side of Architecture, in which I seemed most fitted.

It seems to me that this is the average experience, and that because of the crowding of events, as just outlined, I did not have the time to develop any "Architectural Sense," I was intent on conquering these different matters and each one seemed to just simply develop.

I believe, therefore, that the "Architectural Sense" has a definite place in the development of an Architect or Draftsman. It comes after the rudiments have been conquered, to a certain degree, and it is not a part of the Draftsman's make-up at the beginning of his career. It is far too big a thing for him to comprehend or to be taught in the short time that he is learning Architecture.

As to the time that "Architectural Sense" develops, I believe that the first time it starts, is the Draftsman's first visit to a job upon which he has worked. When he has the chance to see how his drawings are carried out and how the building has developed from his drawings, then, he gets his first thrill and that thrill is his "Architectural Sense" developing.

Unfortunately, there are many draftsmen and designers who never see the building upon which they have worked, until it is completed. Then it is, to a certain degree, too late to get a real thrill. If you plant a seed and go away to come back later when it is in bloom, you admire its beauty, but if you have watched it grow day by day and nurse it along, then, it is a greater thrill when it finally blooms.

Therefore, it seems to me, that "Architectural Sense" is simply a development that is arrived at, at a definite period of training, and as such, of course, many men think they have it, but, unfortunately, they have not. It can only be obtained by close study and application to the job in hand, large or small. It can be developed in a small building, or a large building, if each is done with the best thought each time, and it must be built on former mistakes and observations.

I may be wrong, but I think that I have a certain degree of "Architectural Sense," due to the advantage of being able to see buildings grow. Still, I am wondering if I will ever be a great Architect with a real "Architectural Sense", as there always seems to be something new to develop this "Sense."

AARON G. ALEXANDER



## PENCIL POINTS

### THE NEW YORK ARCHITECTURAL CLUB, INC.

WE HAVE AN EXCEEDINGLY pleasant duty to perform, and that is to announce herewith to all our friends, to our enemies if we have any, to the anvil chorus, to other minor organizations including the League of Nations, as well as to Calamity Jane and the rest of the community at large that the *New York Architectural Club's Headquarters* is now, and will be henceforth for possibly the next five years, or less, at No. 118-120 East 42nd St. in this city, the Capital of the World. In order to avoid misunderstanding, we wish to elucidate parenthetically the "or less" in the above statement with the prediction that within the next two years we expect to be established in *our own* building. We haven't been far wrong in our other modest predictions to date, and this one is even more reasonable than the others, comparatively speaking. Hence, "or less."

Subsequent to our announcement in the February number of PENCIL POINTS, the Executive Committee of the club has leased space at the above address for a period of five years. At this writing, the place is a regular rip-snorting bee-hive of activity in the act of transformation, due to the kindest of co-operation from "the trades," who are extending most valuable and generous assistance in the alteration of the premises to suit our requirements. In a future article we hope to describe more fully the extent of this appreciated assistance and mention who they are by name.

The atelier committee, in collaboration with the rest of the Board of Directors, has evolved a very decent layout for the floor, and to judge from the indications, we will certainly have ideal and comfortable quarters. The floor is rectangular in shape, and has a frontage of 50 feet on 42nd St. The plans provide for a club lounge across the entire front of the floor and 26 feet in depth. The atelier will be L shaped, and will provide comfortable working space for 32 students, each of whom will have individually adjustable light over his board. Continuing around from the drafting room will be ranged the smaller, or accessory rooms such as storage, cloak room, conference room, dressing room, library, etc., and these together with the drafting room will form a U around the sides and rear end of the floor. The remaining floor space inside the U will be the life class, 18x35 feet, which will easily and comfortably accommodate 30 to 40 students with easels. This room will be separated from the lounge by folding doors across the entire width of the room, which will be opened up whenever social functions or lectures are held, in which case the class room will become a dance floor, or auditorium as the case may be. The interior treatment of the main rooms has not been decided upon up to this writing, and for a very unusual reason. That being, that various manufacturers have offered us their products for this purpose, with the result that instead of being hampered by a limitation in choice of materials as is the case in the majority of building projects, the boys who are handling this portion of the work are faced with an abundance of material to pick and choose from, with the result that every so often they have to be brought up with a jerk by the supervising committee, to keep them from making the place over elaborate or luxurious. In the mean time all concerned are getting a barrel of fun out of the experiment.

We mentioned in the previous number, that the Patron of the atelier will be one of the famous architects of this city. We have even more ambitious plans than that, and when they are announced, some people will keel over with surprise, and then sit up and take notice of the infant club. But—we are not ready to mention any names yet. Sufficient for the time being, that rumors have gotten about, and those who are wise are flocking to the fold, both in class A and class B club memberships.

Incidentally, before closing the subject of club and atelier, we wish to mention that the response to the announcement of the contemplated opening of an atelier has been even greater than we expected. We now have more applications for the various classes than the space provided, and the committee does not feel at this time that the sizes of classes ought to be increased, until the present system is well established. The surplus applicants are being listed as they come in, and will be taken up in this order whenever vacancies occur, or when additional space shall have been allotted. Therefore it would be advisable for all those who feel that they would like to join the atelier, to send in a request in writing without delay. This will place their name nearer the top of the list, and will give us an indication as to what requirements to provide for.

The club membership applicants who have not as yet heard from the membership committee up to the time this number is issued will without a doubt receive notification soon after. This being one of the busiest committees of the club, it has been swamped with work for the past several months, in as much as their work, as well as the work of the other committees has to be done outside of business hours. Someone said to us once, "Patience, thou art a jewel," and we are sure that all our good members and prospective members are richly endowed with the gems.

### BOWLING LEAGUE DIVISION

The Architectural Bowling League is now within a few games of the end of the second and final round of the 5 man team tournament. The leading teams are very close to one other, and as some of the leaders still have some games to bowl off against each other, the standing of the teams may be upset with each game. Needless to say, the interest and speculation in the final result is at a high pitch.

The standing of the teams up to and including February the 4th is as follows:

No.	Office of	W.	L.
1.	Cass Gilbert .....	28	3
2.	Warren & Wetmore .....	27	4
3.	Donn Barber .....	25	6
	Guilbert & Betelle .....	25	6
4.	Alfred C. Bossom .....	21	9
	James Gamble Rogers .....	21	9
5.	McKenzie, Voorhees & Gmelin .....	21	10
6.	McKim, Mead & White .....	20	11
7.	Starrett & Van Vleck .....	19	11
8.	Andrew J. Thomas .....	14	15
9.	Thomas W. Lamb .....	14	16
10.	John E. R. Carpenter .....	15	17
11.	Peabody, Wilson & Brown .....	14	17
12.	Holmes & Winslow .....	12	18
13.	Schwartz & Gross .....	9	22
14.	Benjamin Wistar Morris .....	7	21
15.	Allen & de Young .....	4	21
16.	Shape, Bready & Peterkin .....	3	25
17.	William L. Stoddart .....	0	(F) 25
18.	Schultz & Weaver .....	0	(F) 25

The 3-man team tournament will begin as soon as the 5-man tournament ends, and as the three best bowlers in each organization will be on the firing line, some very good games are in prospect. Our open invitation to all our friends, and those who would care to become our friends still stands. Drop in any bowling night and look us over. The place is Joe Thum's Bowling Academy, 1241 Broadway, at 31st St, New York City, and the time is every Thursday evening from 8 to 12 P M, on the entire 4th floor.

Wednesday evening, March the 10th, will be the big night for the Bowling League. On that night will be given the annual ball, which will take place in Palm Garden, 58th St. & Lexington Avenue, New York City.

In a previous number we did *not* claim to be the king pins of bowling in this profession and our shrinking modesty still prevents us from claiming any such thing now. However, what we did say, still stands. We expected a shower of challenges, but the only response was an invitation from the bold rising west for us to challenge them. That brings to mind a very pleasant experience that we had last year with the afore mentioned youthful territory consisting of a most interesting series of games. If our memory does not deceive, the contest stood at a tie, it being left to our beloved enemies to arrange the date for the rubber games, and which same they never did. We *never* could figure out why.

Such being the case, it is a question whether it wouldn't be harassing for us to bombard them with a challenge. However, we are willing, with a wide gesture of magnanimity be it understood, to let by-gones be what they are, and will condescend to stoop from the heights of our Elysian glory to consider another series of games. All we ask is that definite dates be sent us with reasonable time allowance in advance of the first set of games, and we will do our best to arrange for them.

In closing we wish to state, that if our friendly enemies or enemy friends have had half as much pleasure out of it as we did, they surely had a barrel of fun, and we look forward to more of it. *How about it young west?*

Henry Sasch, Secretary,



## PENCIL POINTS

### THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary of the American Academy in Rome, from Gorham P. Stevens, Director, we quote the following:

"Two Fellows in Painting have just registered with us, bringing the total registration to 81."

"The perspective drawings of the Temple of Fortune at Rome, made by Mr. Deam, Fellow in architecture, have been published in a leading Italian paper, and photographs of three of these drawings are on exhibition in the temple itself."

"Mr. Ferruccio Vitale spent a day and a half in Rome on his way to Florence."

"Mr. Remsen Whitehouse paid us a visit. He informed me that the library, which he is planning to bequeath to the Academy, now numbers 20,000 volumes."

From Frank P. Fairbanks, Professor in Charge, School of Fine Arts, we quote the following.

"Our drafting room for visiting students is now completely occupied with men who are getting into shape the *envois* of their various Fellowships. There are Rotch, Plym Stewardson, Perkins-Boring, Winchester, Chicago Architectural Club, and several Harvard Fellowship holders represented in this activity."

"The men affiliated with the Academy now outnumber the regular men, which is the usual condition with us at this time of the year."

"We have just enrolled two painters from the National Academy of Design, Renwick Taylor, Pulitzer traveling scholar, and Andrew Winter, Mooney traveling scholar. They are together occupying the last vacant studio on the painters' floor."

"The loadstone of the Academy's residential facilities has six men on the waiting list. As many more have been turned away because of the slight prospect of living at the Academy."

### ALPHA RHO CHI CONVENTION

THE ELEVENTH ANNUAL CONVENTION of the Alpha Rho Chi Architectural Fraternity was held at the University of Virginia, January 1st and 2nd.

The University of Virginia and its vicinity made an ideal setting for a convention of architectural students because of its association with the life of Thomas Jefferson, who is almost as well known as an architect as he is a statesman.

The convention was made a momentous occasion by the presence of one of the best known architects in America, Mr. Cass Gilbert, "Master Architect" of the Fraternity.

An interesting event of the convention was a trip to the home of Jefferson, Monticello. This national shrine is now being brought prominently before the public in connection with the Thomas Jefferson Memorial Foundation.

The local chapter was ably assisted by Prof. Joseph Hudnut, of the School of Architecture, University of Virginia, in entertaining the delegates.

At the conclusion of the convention, the delegates were entertained with a dance one night and the next night, a banquet, at which Mr. Hudnut and Mr. Gilbert were the principal speakers. A photograph of the delegates to the convention is reproduced below.

### PRATT INSTITUTE ARCHITECTS' DINNER

PRATT INSTITUTE ARCHITECTS' first get-together dinner at the Fraternity Club House, Thirty-eighth Street and Madison Avenue, New York City, was a great success. Seventy-five men were present and all had a wonderful time. That was only the start. Tentative plans were discussed for the forming of a permanent Club (with residents and non-resident membership) and will be presented for the approval of the men at the next dinner on April Seventh, 6.30 P. M., at the Fraternity Club House. Notices will be forwarded shortly.



DELEGATES TO THE CONVENTION OF ALPHA RHO CHI ARCHITECTURAL FRATERNITY

TOP ROW: C. M. Loving, P. C. Edmunds, T. C. Parker, Fred Lupton, Ralph Little.

SECOND ROW: S. J. Makielski, associate professor; Prof. Joseph Hudnut, H. A. Browne, R. Navarro, O. W. Brown, H. R. Peterman. All of Virginia.

THIRD ROW: A. S. Philips, Illinois; W. B. Simboli, Carnegie Tech; A. R. Naser, Michigan; R. B. Mitchell, Illinois; F. J. Abendroth, Ohio State; R. G. Gulley, Virginia; R. T. Allison, Southern California.

BOTTOM ROW: O. B. Flannagan, Virginia; H. F. Naser, Michigan; W. M. Brown, Virginia; D. P. Ely, Grand Council; Cass Gilbert; H. W. Tousley, editor "Archi"; J. W. Law, Texas; A. C. Flegal, Minnesota; F. L. Gregory.



PENCIL POINTS



PENCIL RENDERING BY HENRY R. DIAMOND  
 FIRST NATIONAL BANK & TRUST COMPANY, UTICA, NEW YORK  
*York & Sawyer, Architects*



PENCIL POINTS



CHARCOAL AND PENCIL RENDERING BY NICHOLAS GVOSDEFF  
KING COTTON HOTEL, QUEENSBOROUGH, N. C.  
*Shape, Bready & Peterkin, Architects*





LOS ANGELES ARCHITECTURAL CLUB ATELIER BANQUET

**LOS ANGELES ARCHITECTURAL CLUB ATELIER**  
THE ATELIER OF THE LOS ANGELES ARCHITECTURAL CLUB held one of its semi-respectable banquets on the evening of the twenty-second of January, at a French café down in the Latin quarter of our Spanish city. The boys literally over-ran the quaint little place, to the apparent discouragement of other patrons. Altho a map of the vicinity appeared on the announcements, some difficulty in orientation was experienced among the personnel, as evidenced by their late arrival.

The decorative scheme, as carried out over the walls and ceiling of the tiny hall, was really a revelation, consisting of festoons of crêpe paper fastened with thumb tacks and pins to picture mold, door trim and chandelier. Much favorable comment was expressed over the fact that such an elaborate motif could have been carried out at a total expenditure of only twenty-five cents, fifteen of which provided thumb tacks, the balance defraying the cost of the roll of paper.

A pleasant touch of atmosphere was gained by the substitution of candle light for candle-power. As a reminder of a day long departed bottles of beer, without the beer, were used for candle sticks, their unstability being the only objectionable feature.

A rather informal program was furnished by the committee in charge, good fellowship and reunion being stressed rather than entertainment by individuals. A bit of boxing by experts was scheduled, but due to the inability of the boxers to read their maps correctly, the Massiers, Abrams and Smith, donned the gloves and did a very clever burlesque of a world's champion about to lose his crown.

Mr. Roy Kelley favored us with a few brief remarks of a light nature, followed by Mr. Lee Fuller in a still lighter and briefer vein. Mr. Lee Rombotis, one of our Patrons, gave an inspirational pep talk, after which the evening was given over to an effervescence that will be remembered for a long time.

## PERSONALS

**SIEWERT & FRIES, ENGINEERS**, have removed their offices to 805—36th St., Milwaukee, Wis.

**LOCKWOOD, POUNDSTONE & BILLIE, ARCHITECTS**, have opened offices in the Allied Building, Tampa and Cass Streets, Tampa, Fla.

**EUGENE HENRY KLABER AND ERNEST A. GRUNSFELD, JR., ARCHITECTS**, have removed their offices to The Tribune Tower, Chicago, Ill.

**FRANK H. SMART AND PAUL R. SCHEUNEMAN** have formed the firm of Smart & Scheuneman, Architects, with offices at 208-9 Apollo Bldg., Pittsburgh, Pa.

**ROLAND S. WESTBROOK** has opened an office for the practice of architecture at 110 Mayo Bldg., Utica, N. Y.

**M. C. PARKER, ARCHITECT**, has removed his office to Suite 1, Ray-Bynum Bldg., Amarillo, Texas.

**ETHELBERT E. FURLONG, LANDSCAPE ARCHITECT**, has removed his office to 940 Broad St., Newark, N. J.

**GOUVERNEUR M. PEEK** has opened an office for the practice of Architecture at De Land, Florida.

**MORGAN WALLS AND CLEMENTS, Architects**, have removed their offices to 1135 Van Nuys Building, Los Angeles, Calif.

**DAVID C. LANGE** has been appointed Head of the Department of Architecture at the University of Idaho, Moscow. Olaf Fjelde and Fred Hanaford will be associated with Mr. Lange in the teaching of Architecture.

## TIME EXTENSION FOR AUSTRALIAN WAR MEMORIAL COMPETITION

THE CLOSING DATE for submission of designs for the Australian War Memorial to be erected at Canberra has been extended to April 30th, 1926. A detailed announcement of this competition was published in our October number. All drawings must be delivered at or before noon of the closing date to the *Official Secretary, Office of the Commission for Australia*, 44 Whitehall St., New York.

## A FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(Other items on page 84 of the Advertising Section)

**Wanted:** First class experienced architect, one familiar with general construction and capable of superintending. Permanent position to right party. Write stating experience and salary expected. Leon H. Lempert & Son, 1172 Mercantile Bldg., Rochester, N. Y.

**Wanted:** architectural draftsman. Organization specializing in the design and construction of high class bank and office buildings has an opening for a young architectural draftsman with good training and experience in designing and planning. Must be able to lay out perspectives. Preference will be given to American born citizen with college architectural school training. Box 51 care of Pencil Points.

**Young man**, 27 years old, desires to make possible permanent connection with an architect doing high class work, residential preferred, with the idea of developing in design and broadening experience, and giving service and profit in return. Have had two years' University schooling, several years of all around office experience in design, detailing and drafting, and some practical experience. Location in or about region of Detroit and Chicago. Box 52 care of Pencil Points.

**Architectural draftsman** wanted for moderate size office in Ithaca, N. Y. doing architectural and landscape architectural work. Must be experienced in fine residence work and capable of carrying drawings through to completion. It is necessary that they be amenable to direction and able to work in cooperation with those in charge. Its a splendid opportunity to learn the relation between architecture and landscape architecture. State full particulars, including salary required and send references. Box 53 care of Pencil Points.

**Draftsman**, 24 years of age, three years' experience in home detailing good references, moderate salary, desires position in architects office. Box 54 care of Pencil Points.

**Architect**, 37, married, Gentile, desires executive opening in small office on good grade work taking charge of drafting room or specifications, superintendence, etc. Thorough knowledge sketching, working drawings and details. A-1 references. Reasonable salary. Box 55 care of Pencil Points.

**Young man**, 17 years old, would like position in architect's office. Graduate of Bushwick High School. Box 56 care of Pencil Points.

**Young man**, 19 years old, would like position as clerk of works or superintendent's assistant, or work for architect by going to jobs and making out reports on their progress, doing tracing and other miscellaneous tasks which by so doing would have chance to raise to either a building or an architect's superintendent. Have been working for an architect the past four and a half years and had six months' experience on the drafting board. Completed a three year course in architectural drawing at Mechanics' Institute and following a course in building materials and construction for past six months at Columbia University Extension. Will go anywhere where assured of employment and fair salary. Box 57 care of Pencil Points.

**Join the bachelors' art club:** Paint and sketch in the land of the Waterfalls. Ideal camp life, limited membership, references required, architects and artists only. Address Lock Box No. 2, Bachelors' Art and Sketch Club, Davidson River, North Carolina, Transylvania County.

**Architectural Engineer**, technical graduate, 15 years' experience as superintendent, structural engineer, specification writer and in general architectural practice, desires place with architectural firm as general manager. Now in Florida. Licensed in Illinois and Florida. Box 60 care of Pencil Points.



## PENCIL POINTS

### FIFTH AVENUE ASSOCIATION AWARDS MEDALS

THE ANNUAL ARCHITECTURAL AWARDS made by the Fifth Avenue Association for the best new and altered buildings in the Fifth Avenue Section during the past year were announced at the annual dinner of the Association. The awards are based on the report of a committee of lay members and architects appointed jointly by the Fifth Avenue Association and the New York Chapter of the A. I. A. The committee was composed of Douglas L. Elliman, Chairman; John Sloane and C. Stanley Mitchell; and the following architects: Harry C. Ingalls, Jerome R. Allen and Joseph H. Freedlander.

The first prize for new buildings, a gold medal and diploma was awarded to Steinway & Sons for the new Steinway Hall at 109 West 57th Street. A certificate was presented to Warren & Wetmore, the architects. Carrère & Hastings received a certificate as architects of the Macmillan Building, at 60 Fifth Avenue and the owners, the Macmillan Co., were awarded second prize for new buildings, a silver medal and diploma. A gold medal and diploma, signifying the first prize for altered buildings, were awarded to Joseph Brummer, owner of the Brummer Building at 27 East 57th Street. The architect, I. N. Phelps Stokes, was given a certificate. The second prize for altered buildings was presented to E. Gerli & Co., Inc., owners of the Gerli Building at 49 East 34 Street. The designer of the building, Arthur J. Barzaghi, received a certificate.

### ADOLPH TREIDLER

ADOLPH TREIDLER, one of whose drawings is reproduced in color in this issue of PENCIL POINTS, was born in Colorado but went to California at a very early age. He was educated there at the University of California and had his only and very brief art training at the Mark Hopkins Institute. He came to New York after the earthquake or as they insist on it in California, "the fire". He has been in New York ever since except for the summers which he always spends in Europe.

Mr. Treidler began to draw as soon as he could hold a pencil and practically never attended any art school. His great interest is in the making of posters, for which he is perhaps best known, and in working in color on such things as the design we illustrate in our series of renderings in color.

Mr. Treidler is thirty eight years old and has a passion for hansom cabs and cats.

### ANNUAL DINNER OF SCHWARTZ & GROSS

THE FIFTH ANNUAL DINNER of the Schwartz and Gross Alumni Association was held recently at 12 East 86th Street.

There were seventy-five members present. The dinner proved to be the most successful held thus far.

Davey Jones, aided by Richfield our noted cartoonist, made a good speech and we know who is going to be toast master next year.

Charles Strauss gave us a good exhibition of stepping as usual and we have a good Charleston dancer in the person of Tearle's aide-de-camp—Becker.

We never did hear that duet by Larry & John Scacchetti but we look forward to hearing it at the next dinner.

Bill Tennent dropped in at the right time, just as our Chairman was floundering around for a spar, and addressed the boys in true, scholarly fashion.

And didn't that joke go over good that Phillips pulled on Herbert. Of course we knew it was Herbert all the time.

Watch for next year's announcement, and don't miss the big dinner.

### CHARETTE PARTY AT ATELIER RECTAGON

THE BOYS OF THE ATELIER RECTAGON at Buffalo recently gave a party for the girls of the Interior Decorating Class of the Albright Art School. The Atelier was all cleaned up for the party which started with a "Paul Jones." Everybody wore smocks and the girls wore tams, too. The girls have promised a return party for the boys. The Sous-Massier has collected a lot of back dues, anyway, and everybody is anxiously waiting for that return party.

### MASSACHUSETTS INSTITUTE OF TECHNOLOGY DEPARTMENT OF ARCHITECTURE

#### COMPETITION FOR TWO SCHOLARSHIPS

TWO SCHOLARSHIPS of three hundred dollars each are offered in the academic year 1926-27 for special students in the third or the fourth year of the course in Architecture at the Massachusetts Institute of Technology. They will be awarded as the result of a competition in design under the direction of the Committee on Design in the Department of Architecture.

The competition is open to citizens of the United States of good character, who are between twenty-one and twenty-eight years of age, and who have had at least two years of office experience.

The competition will be held from May 22 to June 1. Competitors are allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but these drawings must be sent to Boston for judgment.

Applications should be received on or before April 12, addressed to Professor William Emerson, 491 Boylston Street, Boston, Mass.

### BRICKWORK IN ITALY

#### *A Brief Review from Ancient to Modern Times*

THE MATERIAL PRESENTED in this volume will prove of especial value to the young architect and all others interested in every form of cultural development.

The subject is divided into four parts—*Brick in Roman Antiquity; Brick in the Middle Ages, Renaissance and Baroque Brickwork; Brick in the Modern Period.* The book is profusely illustrated with 69 line drawings, 300 halftones, and 20 colored plates with a map of modern and XII century Italy. G. C. Mars, Ph. D., collected and edited the work which is published by the American Face Brick Association, Chicago Price, linen, \$6.00; half morocco, \$7.00. Size 7½" x 10½".



DESIGN WINNING THE COMPETITION FOR A POSTER FOR THE  
BEAUX ARTS BALL OF PITTSBURGH ARCHITECTURAL CLUB





PEN AND INK DRAWING BY RUDOLPH DE GHETTO





HERE IS WHERE WE SET up a claim for the world's long distance subscription championship. We defy all comers. What we mean by this is that one of our subscribers has paid for his subscription to PENCIL POINTS until 1941. The Reverend Emil Zumkeller, who has charge of the construction work for his church and who is located in Chicago, subscribed for PENCIL POINTS in May 1922. Since then from time to time he has extended his subscription until now, as stated above, his subscription is paid for until June 1941.

Maybe some other publication can beat this record. If so we challenge him, or her, to step up and do so.

Our bid for poetry seems to have had an unfortunate influence on the number of sketches submitted this month.

First prize goes to Lewis G. Adams of Paris, France, two of whose sketches are reproduced below. The prize in Class 2 goes to D. A. Hamilton, in Class 3 to Arthur R. Carpenter, and in Class 4 to Clifford Watson Branson.

WE WILL PAY 25 cents each for copies of the *January 1926* issue of PENCIL POINTS sent in good condition to this office.

The Pencil Points Press, 19 East 24th St., N. Y. C.

We had no idea that there was so much latent poetry lurking around the drafting rooms. This form of contribution is getting to be our best crop and from the looks of things we are going to have just lots of poetry all this Spring and Summer, and so far we are glad of it. Some of it has been pretty bad, quite a good deal not so good; but a few contributions have been very, very fine. It only goes to show what the readers of this paper are capable of doing when thoroughly aroused.

It is supposed to be a very low thing for a publisher to mention the name of an advertiser in the reading section of the paper. Well, this time we just can't help it. We refer to the Eldorado Sketch Club conducted by Ernest W. Watson in cooperation with the Joseph Dixon Crucible Company. A student of drawing who is not able to attend a school requires, if he is to improve in his work, intelligent criticism of his efforts. Such criticism, for a modest fee, is being offered by Mr. Watson and all who are interested in this subject are referred to Pages 52 and 53 of the advertising section of this journal for February. A circular giving all information may be secured by addressing the Eldorado Sketch Club, 181 Emerson Place, Brooklyn, N. Y.



Caudebec, France



(PRIZE—Class One—February Competition)

SKETCHES IN CHARCOAL BY LEWIS G. ADAMS, PARIS, FRANCE



## PENCIL POINTS

### REMINISCENT

'Tis St. Johns in the moonlight  
And the steamer wends its way  
Through pads of floating hyacinth  
And midnight mist and spray.

The palms that line the water's edge  
The lacy cypress, too,  
Beshrouded all in trailing moss  
Speak mystery to you.

The ship's eye picks a careful way,  
A zigzag, winding route;  
And great white birds flap past us  
As search-light drives them out.

And, over all—the moonlight,  
Liquid, calm, serene.  
One sits remote from all that's real  
Translated by the scene.

W. W. Beach

### A CORRECTION

The caption under the cartoon appearing on page 132 of our February issue is all wrong.

This cartoon was done by Mr. Stuart Whiting of the office of Edward J. Wood & Son, Clarksburg, West. Va.

A sheet was received in that office with the first of the six drawings done by Clair Briggs. Mr. Whiting filled in the other five spaces so as to complete the sheet as reproduced in this department for February.



SKETCH BY ROBERT MOSLEY WILLIAMS,  
PASADENA, CAL.

### "THE DESIGNER"

(PRIZE—Class Two—February Competition)

Bending over his drawings  
Searching for beauty of line  
Knowing not his surroundings  
Heedless of passing time.

The crayon held in his fingers,  
Seeming possessed of a soul,  
Flows noiselessly over the paper—  
A masterpiece for its goal.

This is the master designer  
Builder of buildings is he  
Seeking for scale and proportion,  
Little he cares for his fee.

His is a greater payment  
The knowledge of work well done,  
The joy in a splendid building  
Glistening under the sun.

Money he must have for clothing,  
Food and a good smoke or two,  
But he will never amass a fortune  
He has too much else to do.

Just now he's designing a mansion  
To be built on top of the hill;  
Tomorrow it may be a hospital,  
Or it may be a cottage for Bill.

He designed that bank on the corner,  
He planned that hotel on "The Drive",  
He visioned that great office building  
Where barons of industry thrive.

He sees, as he draws the mouldings,  
And studies the form and mass,  
The color and texture and finish  
Of wood and stone and glass.

He hopes that the workmen who follow,  
And execute that which he draws  
Will have the true spirit of craftsmen  
And build without any flaws.

This is the master designer  
Builder of buildings is he,  
One of the few men I know of  
Who cares more for his work than his fee.

—D. A. Hamilton

### "ESQUISSE"

Perhaps you will say when you list to my verse  
Entirely the bunk—it couldn't be worse!  
No doubt you'll be right, but who gives a shucks  
Consider my uses for ten lusty bucks.  
I'll always be boosting for your magazine,  
Less money for value, the world's never seen;  
Photographs, sketches and info. galore  
On this and on that—one couldn't ask more.  
In case all you hand me is "Concours Hors"  
"Nil Desperandum," we've had 'em before.  
Till I'm grey at the temples, and weak at the joints  
Somebody's pulling for old "PENCIL POINTS."

John M. Kerr

Said our colleague, G. Whatsinhis Pate,  
"I don't like PENCIL POINTS' Color Plate";  
(Which gave us a terrible pain)  
But we happened to find  
That the man's color blind,  
(So now we are happy again).

Donald F. Brode



ROYAL BARRY WILLS RECEIVES HIS TEN DOLLARS

### IDIOSYNCRASIES OF THE ARCHITECTURAL ATMOSPHERE

I work in the office of Benjamin Huff  
Where they keep a selection of Dietzgen's best stuff  
And a chill azure gloom keeps the stranger at bay  
While the smocks and the smoke and the blueprints hold sway.

There are men to the left, there are men to the right,  
While before and behind in deplorable plight  
Benjy's draftsmen are losing their hair and their youth  
Over details they think are important forsooth.

There's one who attended Yale, Princeton and Tech.  
And now they just give him shop drawings to check  
That man goes to prize fights and when he's at home  
Reads Gene Stratton Porter—tome after tome

That one talks of Wagner and this one of Shaw  
But the third man up front saw the same plays I saw.  
As a strong man delighted to run in a race  
So it pleases that stalwart Norwegian to trace.

But his ponderous neighbor in high, well-built shoes,  
Has a weakness for marble of varying hues;  
He speaks of his "Lady Love", adding with tears,  
"You know we've been married for nigh on ten years".

That immaculate cheery officious young prince  
Interrupts the complacent monotony since  
In theosophy symphonies, riddles and wit  
He is trying to find where his talents best fit

There's the bald headed dreamer with vacuous gaze  
Whose underwear shows at his elbows like lace  
And others (who cannot be mentioned because.  
'Twere unseemly to dwell on their faults and their flaws)

They all sit at the feet of Lord Benjamin Huff  
Who pretends he's an architect—Oh what a bluff!

Did you ever feed the pigeons outside of your window? If you haven't, you have missed something. Here's the prescription—go to any feed store or bird emporium, lay down two bits and ask for its equivalent in cracked corn; then go to your drafting room, or wherever your window is, and put some of the cracked corn on the window-sill—not too much and not too little—just the right amount. For two or three days or so maybe nothing will happen, but then one fine morning or afternoon you will look out and see a pigeon or two on the window ledge. The next day you will see more—and from then on you will have regular customers so long as you do your part. It certainly is kind of friendly and pleasant to have something besides people around the place, and pigeons serve the purpose extremely well and after you have had them around for a while you certainly do get attached to them—the same ones come day after day and week after week and some still visit our windows who were among our first customers two and a half years ago. I hear somebody ask how you can tell one pigeon from another. Just try the experiment for yourself and you won't have to ask. No two look alike and the various color combinations possible among the vagrant birds who make their homes in a big city are almost past belief.

A good way to learn something is to read and study good books. "Good Practice in Construction, Part II", by Philip G. Knobloch, has just been published by The Pencil Points Press.—Adv.

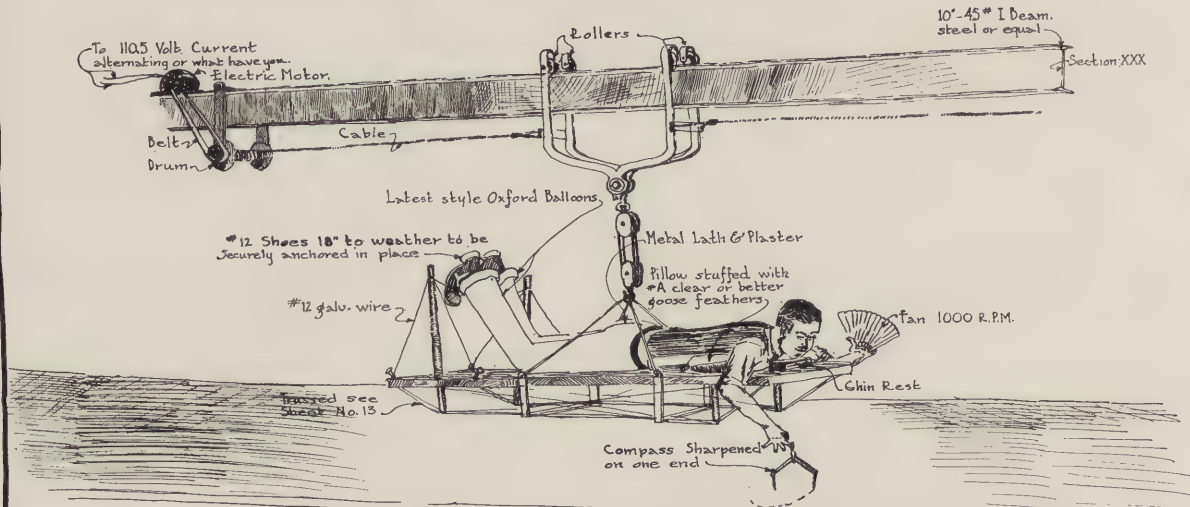
Which of the two color plates published in this issue do you like better and why?



THE BOOKPLATE OF ROY SAMUEL MACELWEE



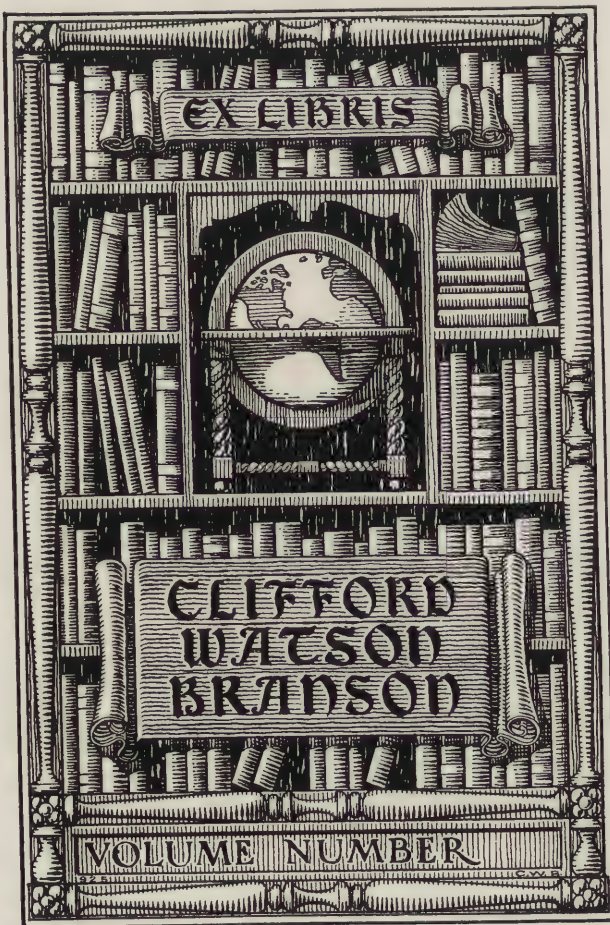
# PENCIL POINTS



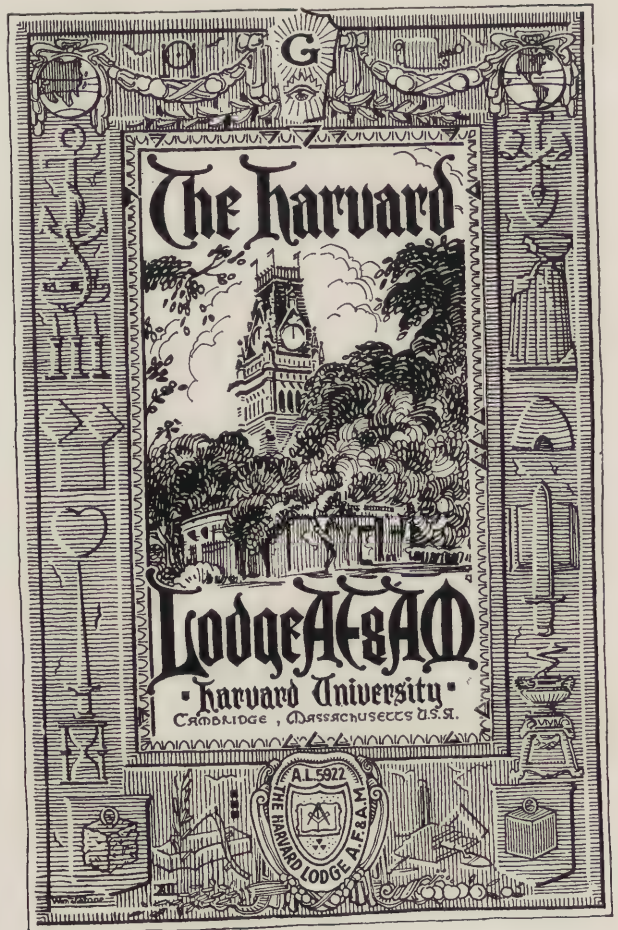
CHIEF DRAFTSMAN MAKING F.S.D. USING AERIAL DETAILER AND  
NECK PRESERVER. (PATENT IMPENDING).

Arthur R. Carpenter  
1/24/26

ARTHUR R. CARPENTER'S INVENTION WHICH REVOLUTIONIZES THE DRAWING OF THE F. S. D.  
(PRIZE—Class Three—February Competition)



BOOKPLATE BY CLIFFORD WATSON BRANSON,  
(PRIZE—Class Four—February Competition)



BOOKPLATE DRAWN BY WILLIAM J. STONE,  
BOSTON, MASS.



# THE SPECIFICATION DESK

## A Department for the Specification Writer

### SPECIFICATIONS

By W. W. BEACH

#### MARBLE, TERRAZZO AND TILE WORK, PART XVII

PENCIL POINTS FOR FEBRUARY contained Division L, Plastering, of these general contract specifications for an imaginary consolidated District School Building of which there had been previously given the Divisions of A, General Conditions; B, Excavating; C, Concrete; D, Masonry; G, Structural Steel; H, Miscellaneous Metal Work; I, Roofing; J, Sheet Metal Work and K, Carpentry.

Division letters E and F were omitted from the sequence, being regularly set aside to designate divisions of Cut Stone, Terra Cotta or Structural Tile when these are thus segregated. In this case, we included cut stone and structural tile with other masonry and assumed a building without terra cotta, hence, the deletion of said division.

Next in order, after Plastering, comes naturally Marble, Terrazzo and Tile Work.

It is a mooted question as to whether these should be combined in a single division or each treated separately. Like many other branches possessing similar characteristics, it is up to the architect to ascertain which procedure produces best results in the locality in which the proposed building is to be located.

For the present purpose, we will assume that there is not enough of any one of these materials in the building to warrant separation—that a concern equipped to install all three materials will give best service at lowest overhead, giving due consideration for foremanship, transportation of men and their local housing and boarding.

#### DIVISION M

##### MARBLE, TERRAZZO AND TILE WORK

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of and apply in full force to these Specifications for Marble, Terrazzo and Tile Work. The Contractor shall refer thereto as forming integral parts of his Contract.

#### ARTICLE 1. *Work Included.*

(A) THE ITEMS under this Division include:

- (1) ALL MARBLE WORK.
- (2) ALL TERRAZZO WORK.
- (3) ALL ART MARBLE WORK.
- (4) ALL TILE WORK.
- (5) SUCH OTHER WORK as is herein specified.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings of this Article, there is given, for the convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Article 3.

(A) KINDS OF MARBLE. Marble in Assembly hall and vestibule of same shall be Vermont "Verde Antique". All other marble, wherever called for, shall be Tennessee "gray" or Tennessee "pink".

(B) IN ASSEMBLY HALL, marble shall be installed as shown for base, wainscot and plinths, also for window stools for certain windows, as indicated. Similar trim shall be installed in vestibule of assembly hall.

(C) IN TOILET AND SHOWER ROOMS, marble partitions, back slabs, compartment ends and tops and wall slabs shall be provided; also marble risers and 6" treads where steps occur in doorways.

(D) BRASS RAILS, STANDARDS AND CLAMPS shall be provided for the support of all free-standing marble as shown.

(E) TERRAZZO FLOORS shall be installed as follows:

- (1) IN ALL VESTIBULES and portions of stair halls as indicated.
- (2) IN ALL CORRIDORS, floors and borders as indicated.
- (2) TREADS, RISERS AND PLATFORMS of all concrete stairs, where so indicated on floor plans.
- (4) STAIR TREADS AND LANDING FLOORS for all steel stairs thruout building as indicated.

(F) CERAMIC TILE FLOORS shall be installed in all toilet rooms thruout the building, in passages leading to boys' and girls' toilet rooms, and in boys' and girls' locker and shower rooms.

(G) ART MARBLE BASE AND PLINTHS shall be installed in connection with all terrazzo and tile floors and for all stairs above basement (except those having steel strings) and wherever art marble base is called for. Cove base as detailed shall be provided under all free-standing marble partitions and fronts of toilet and shower stalls which extend to floor.

(H) SUB-FLOOR shall be laid on concrete structural slab under all terrazzo as may be necessary to bring same up to proper finished level.

#### MATERIALS

##### ARTICLE 3. *Marble Materials.*

(A) ALL MARBLE shall be of the variety and from the quarry selected and shall be of the best grade of that variety. If the selected variety is one of prominent figuration, the slabs shall show maximum variation in shading and figuration.

(B) QUALITY. All marble shall be free from defects. Any piece having any flaw, filling or repair will be rejected.

(C) COPPER ANCHORS shall be in accordance with approved samples.

(D) WATERPROOF CEMENT shall be litharge, properly mixed and applied.

(E) PLASTER PARIS shall be fresh and of best quality.

##### ARTICLE 4. *Terrazzo Materials.*

(A) GRAVEL OR BROKEN STONE for body shall be  $\frac{1}{8}$ " to  $\frac{3}{8}$ " in size, hard and clean, free from dust, dirt or other foreign matter.

(B) MARBLE CHIPS shall be of two kinds of crushed marble as selected,  $\frac{1}{8}$ " to  $\frac{1}{4}$ " in size and free from dust or other foreign matter. Floor colors shall be produced by the use of either kind of marble specified or by combinations of both, as directed.

(C) ALUNDUM CHIPS shall be of approved make and of same size as marble above specified.

(D) SAND shall be coarse and sharp, clean and free from foreign matter. Sand for finished surfaces shall be white.

(E) CLEANING. The foregoing materials shall be screened and washed, if necessary, as directed by the Superintendent.



## PENCIL POINTS

(F) CEMENT shall be Portland, of approved brand, fresh and free from lumps, cakes or other defects. It shall be delivered in original cloth bags, bearing the Maker's name and brand and shall be stored in a dry place, properly protected from the weather.

(G) TARRED FELT shall be an approved brand of tar-saturated felt, weighing at least 14 lbs to 100 sq. ft.

### ARTICLE 5. Metal Trim.

(A) TRIM FOR MARBLE, including all clamps, rods, standards, bolts and screws shall be of silver-bronze of approved weight and pattern. No pipe-shell shall be less than No. 10 gage. All screws and bolts shall have hexagonal heads and nuts. Ends of all bolts shall be flush with nuts and shall be set, to prevent removal of nut.

(B) BRASS LOCK-STRIPS for dividing terrazzo areas shall be  $\frac{3}{8}$ " x  $1\frac{1}{4}$ " and of length to produce panels called for. Strips shall be of approved pattern, punched or deformed for anchorage, and inter-locking in accordance with samples. Brass strips at edges of depressions shall be  $\frac{1}{4}$ " x  $1\frac{1}{4}$ ", with approved anchorage.

### ARTICLE 6. Art-Marble.

(A) ART-MARBLE for base and plinths shall be pre-cast, of approved make, and shall be composed of clean selected marble chips of size to pass a  $\frac{3}{4}$ "-mesh screen and remain on a  $\frac{1}{2}$ "-mesh screen. These shall be mixed with white Portland cement in proper proportion and thoroly tamped to eliminate all voids.

(B) FINISH. Art marble shall be in blocks of size shown, with all exposed surfaces highly polished and all joints smoothed for perfect fit.

### ARTICLE 7. Ceramic Tile.

(A) KIND AND GRADE. All tile for floors shall be selected, unglazed vitreous tile. Where "non-slip" tile is called for, the surface shall have alundum finish to correspond with approved samples.

(B) SIZE AND COLOR of all tile shall be as selected or as called for on drawings. Where not otherwise indicated, 1" hexagons shall be used.

### ARTICLE 8. Samples and Shop Drawings.

(A) SAMPLES of all materials shall be submitted to the Architect for approval. Work installed shall be in exact accordance with approved samples.

(B) SHOP DRAWINGS and setting diagrams shall be submitted, showing layouts and detailed dimensions of all work of this Division and shall be revised and re-submitted until approved, as called for in General Conditions.

(C) MAKERS' SPECIFICATIONS for art-marble and tile setting shall be submitted for approval, and duplicate copies of approved specifications filed with the Architect.

## WORKMANSHIP

### ARTICLE 9. Marble Work.

(A) FINISH of all exposed marble surfaces shall be smoothly honed for floors and dull-polished and waxed for standing members. Unless otherwise shown, all exposed edges shall be slightly rounded, except that external angles of wainscot and base members shall be square.

(B) SIZES. All marble shall be of sizes and thicknesses shown. Where not otherwise stated, all wall-slabs and back-slabs shall be  $\frac{7}{8}$ "; all partitions and other members finished both sides,  $1\frac{1}{4}$ "; all base  $\frac{7}{8}$ "; all plinths and wainscot caps  $1\frac{1}{8}$ "; treads  $1\frac{1}{8}$ " and risers  $\frac{7}{8}$ ". Back slabs on which plumbing fixtures are to be mounted shall be  $1\frac{1}{4}$ " thick. Unless otherwise shown, all partitions shall extend to floor or rest on art marble base as herein specified.

(C) JOINTS shall be ground to perfect fit and shall be located only as shown on approved shop drawings. All adjoining pieces shall be carefully dowed together with copper dowels in cement. Unless otherwise stated, all external angles of die slabs shall be mitered, with  $\frac{1}{8}$ " reentrant-angle joints; all other external angles coped.

(D) SETTING. All marble shall be in perfect planes and securely anchored in place by means of concealed copper anchors in approved manner. Special care shall be used in rigidly anchoring marble plinths. Screw-heads shall be sunk and holes neatly filled to be as nearly invisible as possible. Partitions resting on floor and coves shall be made

perfectly watertight with litharge cement joint. Partitions shall be secured to front and back slabs with 3 clamps at each vertical joint. Fronts shall be supported on  $1\frac{1}{4}$ " standards with head rods and supports of same, all put together with proper fittings, and with flanges secured to floor and walls with 3 bronze screws each, in lead expansion shells.

(E) DRILLINGS. All cutting and drilling shall be done by this Contractor in the most careful manner, as he will be held strictly accountable for all damage resulting from same. This Contractor shall drill floors and rough masonry where necessary to anchor his material and shall indicate to Mason precisely where he requires holes drilled in glazed brick, as only the Mason will be permitted to drill same. The Marble setter shall do all drilling of his material for the accommodation of others, such as register faces, piping, hardware, etc., as no one else will be permitted to cut marble.

### ARTICLE 10. Terrazzo Work.

(A) CONCRETE SLABS will be left about 3" below finished floor level, where terrazzo is specified and  $1\frac{1}{4}$ " where ceramic tile is specified, and the Contractor shall start his work from these levels.

(B) COMPOSITION. Terrazzo shall consist of an expansion course of sand, a waterproof course of tarred felt, a body course of concrete, a screed course of same and a topping of finished terrazzo, making a total thickness of not less than 3" nor more than the maximum indicated on drawings.

(C) EXPANSION COURSE shall consist of a  $\frac{3}{8}$ " layer of clean sand, laid after all conduit and piping are in place and the surface of concrete slab swept smooth. Sand shall be leveled off  $2\frac{3}{8}$ " below finished plane of floor.

(D) TARRED FELT shall be carefully laid over the sand to receive the concrete and shall be lapped 2" at all edges.

(E) BODY COURSE shall consist of 1" of 1:4:1 concrete, thoroly rammed and rolled to form compact and level surface  $1\frac{1}{8}$ " below finished plane of floor, care being taken not to disturb or tear the felt.

(F) SCREED COURSE shall consist of 1" of 1:3 cement mortar, into which the brass strips shall be bonded, ready to receive panels of dimensions, color and design as shown on plans. Screed course shall be laid before body course has begun to set, to secure perfect bond.

(G) BRASS STRIPS. Where sizes of panels between brass strips are not shown, the strips shall be located on center lines of columns and halfway between same. Intermediate strips shall be placed between these and in opposite direction to form panels about 30" square.

(H) TERRAZZO SURFACE shall consist of marble chips and neat cement mixed dry in such proportion that the cement will entirely fill the voids in the marble chips. This mixture shall be wet, then mixed again and laid between brass strips to level of top of same. A sprinkling of dry marble chips shall then be made and the whole rolled into a compact mass.

(I) FINISHING. After rolling, the surface shall be sprinkled with dry cement, before initial set, then hand troweled to an even finish to close all air pockets. Floor shall be allowed to set, then ground to a true, even surface and carefully grouted to fill all voids and to show at least 80% of marble in the finished surface, which shall be rubbed, cleaned and waxed. This finished surface shall be perfect in every detail.

(J) TREADS, PLATFORMS AND LANDINGS of steel and concrete stairs shall be laid in same manner as other terrazzo except that sand cushion and felt shall be omitted and there shall be included in the dry chips sprinkled on surface  $\frac{1}{4}$  lb of alundum chips to each square foot of area. Finished surfaces shall be  $\frac{1}{4}$ " above top of steel nosing and shall be neatly rounded over same. Terrazzo risers and nosings (of concrete stairs) shall be carefully formed to profile shown, using approved bonding cement grout to secure adherence to surface of concrete.

### ARTICLE 11. Art-Marble.

(A) COVE-BASE AND PLINTHS shall be provided as called for, and as specified in Arts. 2 and 6, properly and rigidly set in full bed and backing of 1:3 cement mortar, true, straight and neatly pointed, finished and cleaned. Lengths



## PENCIL POINTS

of base shall be evenly proportioned to fit space, without use of short fillers. Where not otherwise shown, lengths shall average 3'6" to 5'0".

### ARTICLE 12. *Tile Work.*

(A) FLOORS shall be provided in all locations called for, all furnished and installed in accordance with "Basic Specifications for Tile Work," First Edition, 1921, as issued by the Associated Tile Manufacturers, Beaver Falls, Pa., insofar as same apply.

(B) CONCRETE SLAB under tile floors will have rough surface about 1 1/4" below finished floor level. Finished floor in shower stalls will be about 4 1/2" above that outside of same and this Contractor shall provide the additional fill of approved light weight filler to bring these floors to proper

planes and shall build into same the drains and lead pans provided and installed by Plumbing Contractor.

(C) CERTIFICATE. The Contractor shall furnish a "Grade Certificate" issued by the Associated Tile Manufacturers showing that each different tile used is in accordance with these specifications.

### ARTICLE 13. *Guaranty.*

(A) PLEDGE. This Contractor hereby guarantees that he will, without expense to the Owner remove and replace all parts of the work of this Division which may develop cracks, chips, hollowness or other defects during a period of one year from date of acceptance of work, which defects are, in the opinion of the Architect, due to imperfections in workmanship or material furnished under this contract.

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Portland Cement Stucco.**—Booklet on the subject containing article on the Progress in Stucco Surfacing, 11 full page color plates, illustrations showing different methods of application to secure desired effects, condensed specifications, recommendations on design and construction, typical construction details and article on Overcoating. 64 pp. 8 1/2 x 11. Portland Cement Assn., 111 West Washington St., Chicago, Ill.

**Fire Proof Doors and Hardware.**—Catalog and Price List No. 61.—Looseleaf catalog illustrating and describing fully this line of products. 8 1/2 x 11. Coburn Trolley Track Co., Holyoke, Mass.

*Published by the same firm, Patent Rolling Ladders, Catalog No. 65, Overhead Conveying Equipment, Catalog No. 63. Sliding Door Hardware, Catalog 130.*

**American Walnut for Interior Wood-work and Paneling.**—Treatise on the subject by George N. Lamb. Contains many attractive illustrations, tables of comparative costs, specifications, wall treatments, comparative tests, pattern of panels, etc. 24 pp. 7 x 9. American Walnut Mfrs. Assn., 616 South Michigan Ave., Chicago, Ill.

**Vacuum Cleaning Data Portfolio.**—A.I.A. Classification No. 35-j-1, contains, in readily accessible form for the specification writer, complete data on installed vacuum cleaning systems. Layouts, tables of piping size, requirements to be considered, etc. Standard filing size, 8 1/2 x 11. United Electric Co., Canton, Ohio.

**Knife Switches and Accessories.**—Catalog No. 25 shows this line completely. 33 pp. 8 x 11. Frank Adam Electric Co., St. Louis, Mo.

**Brass Pipe for Water Service.**—Bulletin B-1 monograph on the subject, typical layouts and valuable engineering data for architects, engineers and contractors. 8 1/2 x 11. 32 pp. The American Brass Co., Waterbury, Conn.

**Enameled Brick Data Sheet.**—Condensed information with 8 detail drawings showing special shapes, construction drawings, etc. 8 1/2 x 11. American Enameled Brick & Tile Co., 52 Vanderbilt Ave., New York City.

**English Precedent for Modern Brickwork.**—Book showing a selection of the best English buildings in brick. Colored frontispiece, many full page plates and measured drawings. Text on the subject, including chronology of English brickwork from 55 B. C. Heavy plate paper. 100 pp. 8 1/2 x 11. Price \$2.00. American Face Brick Assn., 1760 Peoples Life Bldg., Chicago, Ill.

**Letters To and Fro.**—A booklet profusely illustrated in color presenting much useful information in attractive form concerning modern house heating, a subject sometimes regarded dull made interesting by its unusual and human treatment. 36 pp. 7 x 10. Burnham Boiler Corp., Irvington, N. Y.

**The Six Quick Steps.**—Illustrated booklet dealing with Bull Dog Floor Clips. Indexed. 8 1/2 x 11. 24 pp. The Bull Dog Floor Clip Co., 108 No. First Ave., Winterset, Ia.

**Lumber Data.**—Loose leaf folder of information sheets on California White and Sugar Pine products. 9 1/2 x 12. California White & Sugar Pine Mfrs. Assn., 680 Call Bldg., San Francisco, Calif.

**Real Roofing.**—Attractive booklet dealing with modern types of roofs, with an interesting chapter on climate as affecting roofs. Copper and Brass Research Assn., 25 Broadway, N. Y.

**Craftex.**—Folder illustrated with color plates showing methods of applying this modern material on interior wall surfaces. Textures and colors illustrated and described. Specifications. Standard filing size. The Craftex Co., 101 Park Ave., New York.

**Suggestions for Architects and Their Clients.**—A series of sheets in color showing installations of high-class equipment for the bathroom. Crane Co., 836 So. Michigan Ave., Chicago, Ill.

**Drawing Materials.**—Catalog No. 11 covering everything required in the drafting room with list prices. Fully indexed, cloth bound, 400 pp. 6 x 9. Eugene Dietzgen Co., 166 West Monroe St., Chicago, Ill.

**The Dunham Handbook No. 214.**—Covers subject of radiation and all other matters pertaining to the modern heating plant. Sectional drawings and typical layouts. Much engineering data. Handy pocket size. 144 pp. C. A. Dunham Co., 230 E. Ohio St., Chicago, Ill.

**Hard-n-tyte Engineering Service.**—Booklet on the subject of floor construction and maintenance with especial reference to industrial conditions. 16 pp. 8 x 11. General Chemical Co., 40 Rector St., N. Y.

**G. & G. Atlas Systems.**—Catalog No. 1755 A.I.A. File No. 25-h-21 illustrates and describes Atlas Pneumatic Tube System and supplies with details as to saving in floor space, personnel power and maintenance and time. 8 pp. Gillis & Geoghegan, 548 West Broadway, N. Y.

**Chimney Pieces.**—Portfolio of photographic reproductions of fireplaces and mantels in all styles and periods with plans and measurements. A valuable addition to the files of every architect and designer. Jacobson Mantel & Ornament Co. 322 East 44th St., N. Y.

**Jenkins Valves.**—Four convenient handbooks classified according to types of buildings. The series covers hotels, apartment houses, clubs, auditoriums, theatres, industrial plants, office and loft buildings, banks and stores, public buildings, schools, churches and community houses. Jenkins Bros., 80 White St., N. Y.

**Store Front Construction.**—Full size details showing Kawneer construction. 16 x 20. Kawneer Mfg. Co., Niles, Mich.

**Enameled Plumbing Ware.**—Catalog F. Very complete illustrated list of Kohler products. Indexed. 215 pp. 7 1/2 x 10 1/2. Kohler Co., Kohler, Wis.

**Saving Home Construction Costs.**—Technical booklet on this important subject. Long-Bell Lumber Co., R. A. Long Bldg., Kansas City, Mo.

**The Roof Beautiful.**—Brochure illustrated in color on the subject of roof treatment. 8 x 11. 32 pp. Ludowici-Celadon Co., Monroe Bldg., Chicago, Ill.

**Marbleloid—the Universal Flooring.**—Illustrated booklet covering subject of modern flooring in various types of buildings and for many uses. Industrial plants, restaurants, schools, hospitals, sales rooms, churches, theatres are covered. 24 pp. 8 1/2 x 11. The Marbleloid Co., 461 8th Ave., N. Y.

**The Book of Decoration.**—Brochure profusely illustrated covering typical rooms in the various period styles, together with their finishing accessories. Notes on wood finishing. 50 pp. 8 1/2 x 11. Murphy Varnish Co., Newark, N. J.

**Dependable Drawing Materials.**—14th Edition. Complete List of drafting room supplies. 356 pp. 6 x 9. The Frederick Post Co., 3617 No. Hamlin Ave., Chicago, Ill.

**National Steel Fabric.**—Illustrated book for the information of architects, draftsmen and builders. Covers various types of stucco work with working drawings and much useful information. 32 pp. 8 1/2 x 11. National Steel Fabric Co., Union Arcade, Pittsburgh, Pa.



## PENCIL POINTS

**Reading Wrought Iron Pipe.**—Bulletin No. 1. Technical Treatise on the development of this material, methods of manufacture, service in public buildings and other important structures. 32 pp. 8½ x 11. Reading Iron Works, Reading, Pa.

**Improved Mechanisms in Builders' Hardware.**—Complete catalog showing detail drawings, and instructions for installing mechanical builders' hardware such as casement hinges, casement operators, hinges and pivots, and overhead door checks. Catalog 6 x 9. 58 pp. The Oscar C. Rixson Co., 1210 Architects Bldg., N. Y.

**Soss Invisible Hinges.**—Booklet showing details and specification data. Hinges for furniture, cabinets and general use in buildings. 24 pp. Soss Mfg. Co. Grand Ave. & Bergen St., Brooklyn, N. Y.

**Paints and Waterproofing.**—A series of attractive folders prepared especially to give information to the busy man on a wide variety of matters pertaining to protective paints, dampproof coatings, cement and mortar colors, etc. Ask for complete set of literature for architects. Toch Bros. 320 Fifth Ave., N. Y.

*Published by the same firm Elastic Caulking Compound for Metal or Wood Window Frames and Doors, Pointing Terra Cotta, Stone Joints, etc. A.I.A. File No. 19e16. This folder contains illustrations and specifications. Also folder on Chewing Gum Remover.*

**T. & B. Registers & Grilles.**—78th Annual Catalog showing complete line with attractive drawings and engravings together with prices, dimensions, detail drawings and complete data. 76 pp. 8 x 11. Tuttle & Bailey Mfg. Co., 2 West 46th St., N. Y.

**The Book of Vermont Marble.**—2nd Edition. A reference book for the architectural profession. Profusely illustrated with fine examples of marble work, construction details and much other useful information for the draftsman and architect. 70 pp. 9½ x 11. Vermont Marble Co., Proctor, Vt.

**Samples of Tracing Paper.**—Four samples 17 x 22 of prepared tracing papers suitable for all types of work. George Vincent, 649 West 43rd St., N. Y.

**The Sanitation of Swimming Pools.**—Technical publication No. 21. Covers subject indicated in text and illustration. Wallace & Tiernan Co., Inc., Newark, N. J.

**Arkansas Soft Pine Handbook.**—Text and moulding designs, grading rules, diagrams and much useful data. 62 pp. 8½ x 11. Arkansas Soft Pine Bureau, Little Rock, Ark.

**Par-Lock Plastering.**—Folder containing specifications, its uses, how it is applied, what it accomplishes, materials used, who applies it. 8¼ x 11½. Vortex Mfg. Co., 1978 W. 77th St., Cleveland, Ohio.

**The Heating and Ventilating of Buildings.**—Handsome catalog illustrating and describing Sturtevant Heaters. Layouts and plans, full size plates showing buildings equipped with this type of heating system. Stiff cover. 8 x 10. 300 pp. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

**Hitchings Greenhouses.**—Attractive booklet on the subject of Greenhouses, Conservatories, and data on Cold Frames. Profusely illustrated. Contains plans, layouts, information regarding heating, standard sections and list of books on Greenhouse operation. 59 pp. 8¼ x 11½.

**The Bond That Guarantees the Wall.**—Treatise on Carney Mortar. Contains illustrations of buildings where Carney has been used and official specification. The Carney Co., Mankato, Minn.

**New Process Gas Ranges.**—Catalog No. 156. A new publication describing this type of gas range, laundry stoves, copper reflector gas heaters, and specialties. Price lists and tables of measurements, etc. 128 pp. 7 x 10. New Process Stove Co., 4301 Perkins Ave., Cleveland, Ohio.

**The Renaissance of Colored Stucco.**—New de luxe booklet just off the press on the subject of colored stucco as applied to home architecture. Illustrations consist of full-color plates, detail drawings, etc. A valuable addition to the architect's library. Bishopric Mfg. Co., 503 Este Ave., Cincinnati, Ohio.

**Thoughts of Home.**—Attractive brochure illustrated in color showing decorative treatment made possible with Vitrolite throughout the home. Stiff cover. 8½ x 11. 16 pp. The Vitrolite Co., Chamber of Commerce Bldg., Chicago, Ill.—Pershing Square Building, New York City.

*Published by the same firm, Sanitary Tables and Counters, Everlasting Slab, Material as Applied to Schools, Colleges, Universities, Libraries, Clubs, Churches, Office and Public Buildings, Y. M. C. A. Buildings and Private Offices, Eating Places, and Retail Stores.*

**Slate Roofs.**—Manual illustrating and describing this product fully and containing dimensions, tables, methods of laying, rules for estimating flashing, handy rafter tables, standard and construction details, specifications and general data. A valuable addition to the architect's library. 8½ x 11. 84 pp. Price \$1.50. National Slate Association, 791 Drexel Bldg., Philadelphia, Pa.

**Modine Unit Heater, Bulletin "A".**—Illustrates and describes fully this type of heater for steam or hot water heating systems. Contains tables of capacities and prices, typical steam installation and typical hot water installation details, also typical installation specifications. 8½ x 11. Modine Mfg. Co., Racine, Wis.

**Forge Craft.**—Catalog 16 A.I.A. File 31f23. Attractive catalog illustrating and describing luminaires and wall brackets, giving dimensions and prices. 16 pp. 8½ x 11. The Edwin F. Guth Co., St. Louis, Mo.

*Published by the same firm, Catalog No. 15 illustrating other luminaires in bronze, copper and iron in hundreds of styles.*

**The Wall of Protection.**—A.I.A. File No. 3h 1926. Catalog illustrating and describing interlocking tile, details, tests, detailed data and specifications, tables for figuring quantities. 8½ x 11. 16 pp. Interlocking Tile Corp., Union Trust Bldg., Cleveland, Ohio.

**The Attractive Home—How to Plan its Decoration.**—Handsome booklet with text by Hazel Dell Brown, profusely illustrated, containing 8 color plates and patterns in Armstrong's Linoleum Floors in color, also colored illustrations of Armstrong's Genuine Cork Linoleum Rugs. 24 pp. 6½ x 9½. Armstrong Cork Co., Linoleum Division, Lancaster, Pa.

**Kitchen Maid.**—Looseleaf catalog illustrating and describing various types of kitchen cabinets, dish closets, cupboards, refrigerators, broom closets Pullmanooks, etc. Typical plans and layouts, with instructions for installing, dimension sheet, blueprints. 8½ x 11. Wasmuth-Endicott Co., Andrews, Ind.

**"Improved" O. G. Fir Gutters.**—Catalog illustrating and describing this product, for use in many types of buildings. Scale details, how to install, etc. 8 x 11. 16 pp. E. M. Long & Sons, Cadiz, Ohio.

**The Insulation of Roofs with Armstrong's Corkboard.**—New booklet on this subject containing much valuable information of interest to architects, draftsmen and specification writers. Many illustrations, specifications, details, etc. 7½ x 10¼. 31 pp. Armstrong Cork and Insulation Co., Pittsburgh, Pa.

**Quick Meal Gas Ranges.**—Catalog No. 138 shows popular models of this type of range. Tables of dimensions, illustrations. Also contains sheet illustrating equipment for Domestic Science School Laboratories. 28 pp. 6 x 9. Quick Meal Stove Co. (Div. of American Stove Co.) 825 Chouteau Ave., St. Louis, Mo.

**The Book of Masterbuilt Floors.**—Looseleaf portfolio on the subject of floorings for various types of buildings. Standard specifications and much useful data. 70 pp. 8½ x 11. A.I.A. File No. 3b2. Portfolio also includes section on waterproofing A.I.A. File No. 3b4. The Master Builders Co., Cleveland, Ohio.

**Sylphon Thermostatic Water Mixer.**—Bulletin W-100 is devoted to this type of water mixer for automatically and accurately regulating temperature of mixing waters. Contains illustrations, details, tables of capacities, list prices and shipping weights, also chart showing probable consumption of hot water at 150 degrees FAHR. per hour for different fixtures in different types of buildings. 8½ x 11. The Fulton Co., Knoxville, Tenn.

*Published by the same firm Bulletin T-106, devoted to temperature control of refrigerating systems with Sylphon Temperature Regulators.*

**Why Plumbers Use Curtin Fittings.**—Leaflet illustrating and describing this line of plumbing fixtures and accessories. A. F. Curtin Valve Co., 76 Ship Ave., Medford, Mass.

**Cypress Special Colonial House.**—This document is in the form of a large sheet showing complete elevations, section, floor plans and details for a Colonial House designed by Messrs. Lowe & Bollenbacher, architects, of Chicago, Ill. On the reverse side are complete specifications for the house, together with much other useful information. Copies may be secured upon application to Southern Cypress Manufacturers Assn., Poydras Building, New Orleans, La.

**Machinery Isolation.**—Bulletin in portfolio covering subject of reducing noise and vibration from machinery. Technical data, drawings and complete instructions for overcoming this difficulty. Standard filing size. Armstrong Cork and Insulation Co., Pittsburgh, Pa.

**Thermostatic Devices.**—Catalog G. Handbook covering the subject of temperature control, and many other types of control for use in buildings and industrial plants. Blue prints and much useful data. National Regulator Co., 208 So. Jefferson St., Chicago, Ill.

**Reinforced Concrete Floors.**—New publication dealing with subject indicated covering all types of construction in general use. Tables and other data valuable to the draftsman and specification writer. 36 pp. 8½ x 11. National Steel Fabric Co., Union Trust Bldg., Pittsburgh, Pa.

**The New Window Vogue for the Home Beautiful.**—Folder showing application of casements adaptable to all styles of architecture and all sizes of buildings and openings. Detroit Steel Products Co., Detroit, Mich.



# PENCIL POINTS

Volume VII

APRIL, 1926

Number 4

## WHAT DO WE OWE EACH OTHER?

WHAT DOES THE ARCHITECT owe to his draftsman? And what does the draftsman owe to the architect for whom he works? The financial side is one which is, or should be, controlled by the law of supply and demand; and at the moment we are not concerned either with the point of view that draftsmen, as a body, are paid less than they are worth, or with the other side of the coin which holds an inscription to the effect that the draftsman is paid more than he should be.

Rather are we concerned with other and, we believe, equally important considerations. Architecture is not a business in the same sense that the manufacture of steel is a business. The practice of architecture has its business side which should be efficiently conducted, but the practice of architecture is, or should be, something more than a business; and it is of this "something more" that we would speak.

Every office which has the word "architect" over the door should be the home of people—whether it be a large or small group—who are striving together harmoniously to produce buildings of all types which will accommodate our present population and serve either as expressions of beauty or of utility, or both, for many generations to come. To secure the best results, relations must be established among all those contributing to the work which will give to each individual and to the office as a whole a free and untrammelled opportunity to express the best there is there in terms, first of ideas, second of drawings, and third of those other steps necessary to create the finished building.

To say that the architect owes to his men and that the men owe to their employer a "square deal" all along the line is to utter a frightful commonplace; so we hasten to ask of just what this "square deal" should consist from both sides. And here is the way we see it. The architect, usually being an older and more experienced man than those working for him, has the greater responsibility and the greater vision by which to steer the office craft. His is a more mature judgment and he should be the leader and the inspiration of the force. He should be fair and patient, realizing the aspirations of his force as well as their limitations; and seeking to develop the latent abilities of those under his roof for the common good of the office as well as for his own financial and spiritual well-being. In the offices where these facts are appreciated and given due weight,—and there are thousands of them,—the family is a happy one; the work goes smoothly in the main; hirings and firings are not daily occurrences; and there is a spirit of loyalty and trust which means still greater success and still more pleasure to be

derived from the work from year to year. In so far as possible, depending somewhat upon the size of the organization, the architect should make it a point, by helpful criticism and the display of a genuine personal interest, to assist his men to improve and develop themselves so that they will be fitted for more important tasks within the organization, if opportunities present themselves, or for a larger usefulness elsewhere if the opportunities be limited in that particular office. Those architects who follow this course find that their better men will stick to them rather than listen to the tinkle of an extra five dollars, said tinkle emanating from some other architect's office or from some other line of endeavor.

What does the draftsman owe to his employer? We used the word "loyalty" a little way back, and that just about sums it up. If a draftsman cannot be really loyal to the man for whom he is working, there is something wrong *somewhere*, and he had better go elsewhere and start all over again. A draftsman who is seeking to "get by" as easily as possible and is master of those tricks of evasion with which we are all familiar, is not giving his employer a "square deal". Each step in the work of the office requires conscientious and intelligent performance. If something goes wrong on a drawing it makes a lot of trouble on the job, and while mistakes are inevitable, none should be the result of indifference, carelessness or a desire to deliver less than the full measure—and full measure as we see it is the best there is in you. If a shirk "gets by" for a while he may think he is clever, but when he gets caught he knows, or ought to know, that he has been a fool.

No architect's office can run on a precise schedule. There are times when the impossible has to be done, and when such a situation arises, it is no time to whine at the clock. The chances are the boss puts in more overtime than his men, and he carries a greater responsibility. If the boss happens to be one of the few who never can say a kind word to anybody, (and there are such even in the practice of architecture), there is at least the satisfaction of knowing that one has done a good job and that is worth something to a man even if he gets fired the next day; but he probably won't.

Every draftsman, whatever his ability, his circumstances, or his difficulties, can do his level best. That he owes to his employer, to his fellow draftsmen, and above all to himself.

What does the architect owe to his draftsman? And what does the draftsman owe to the architect? You tell us what you think about it.





LITHOGRAPHIC STUDY, CONCORDIA SEMINARY, ST. LOUIS, MO., BY CHARLES Z. KLAUDER



LITHOGRAPHIC RENDERING OF A COUNTRY RESIDENCE, BY HOWARD LEIGH  
*Walker & Gillette, Architects*

## ARCHITECTURAL USES FOR LITHOGRAPHY

*By Kenneth Reid*

IN THESE MODERN DAYS of large buildings and urgent publicity, the architect is confronted with the necessity of furnishing to his client a multiplicity of pictorial representations of his projected structure as it will look when completed. To begin with, a number of copies are needed during the financing operations to show to the banking and financial executives and investors who wish to see what material form their investment is to take. There must be other copies for newspaper and trade journal publication so that the operation may be given suitable advertising. Finally, when the building is an assured project and is actually to be built, a further number of copies of the perspective are needed to put into the hands of the brokers and agents charged with the renting of space. When these needs are summed up in the case of, let us say, a twenty-five story office or apartment building, a hundred or more individual prints must be supplied.

To meet the demand for drawings the architect may choose to have his rendered perspective done in almost any medium,—charcoal, pencil, pen-and-ink, or wash, for monochrome effects, and water-color, pastel, or oil paint if color is desired. In all of these cases duplication is a matter of obtaining photographic prints, or photostats, which may be made larger or smaller than the original drawing.

Lithography has, in recent years, attracted the architect's attention more and more as furnishing a cheap, rapid, and eminently satisfactory method

of obtaining multiple prints of architectural perspectives. It possesses several important advantages over other media, though perhaps a few disadvantages.

In the first place, every print is an exact duplicate of the original drawing and is actually considered, in the parlance of lithographers, an "original". There is no loss of effect through the intervention of the camera and all values remain the same as when they were set down.

Each recipient of such a print is likely to gain a favorable impression of the architect and of his design, all of which may materially aid in the successful financing of the building. It has been found also that a good lithographic drawing will, in general, make a better subject for newspaper reproduction in line or in half-tone than other types of rendering. A small thing perhaps, but of importance in presenting the design to the public. Whatever advantage there may be in these points in favor of the lithograph is obtained not at increased expense but actually at a substantial saving. The cost, per print, of a lithograph is usually about one fourth of the cost of a photographic print, so it can be readily appreciated that this might mean a difference of many dollars in the course of a year, or even on one job.

There is to be considered also the draftsman's point of view in determining the suitability of the lithographic medium. Most men seem to agree that with the fat, rich black, litho-pencil they can pro-





LITHOGRAPHIC RENDERING OF THE HOTEL STATLER, DETROIT, BY JOHN VINCENT  
*George B. Post & Sons, Architects*



## ARCHITECTURAL USES FOR LITHOGRAPHY

duce very gratifying results, ranging from broad, massy effects to fine detail suggestion. In fact the danger lies upon the side of making the drawing more attractive than the reality. More than one designer has found how deceptive a litho-pencil sketch can be when he comes to translate it into the cold and definite lines of a working drawing. Skillfully handled, the medium is capable of giving drawings which tell the story in a way which is

of room for experimentation by the draftsman interested in the development of new styles and the revival of old ones. An evening or two spent in a library looking over the collected works of Boys, or Prout, or Roberts, or Isabey—those early masters of architectural lithography—cannot help but impress the draftsman with the possibilities latent in this art. The work of some of the younger men, notably that of Samuel Chamberlain, has done much



*Print by George C. Miller*

LITHOGRAPHIC RENDERING OF BREAKERS HOTEL, PALM BEACH, BY BIRCH BURDETTE LONG

effective, not at all mendacious, and yet artistically excellent.

As may be seen from the illustrations given, the lithographic method is equally applicable to the making of finished renderings and of sketches. Mr. Charles Z. Klauder in particular, who was one of the first, if not the first, among American architects to make extensive use of lithography, has made many delightful architectural studies in the medium. Color may be employed if desired and there is plenty

to popularize lithography for architectural sketching.

The bare theory upon which the art of lithography is based may be briefly stated and easily understood. Let us start with the drawing surface,—clean, free from grease, and of a material having equal affinity for grease and water. Now if we make a mark on this surface with a greasy pencil or crayon, such as a lithographer's crayon, and pass a wet sponge over the entire surface, the water will be repelled by the mark but will be accepted by the original bare sur-





LITHOGRAPHIC RENDERING OF TRINITY CHURCH, NEW YORK, BY HOWARD LEIGH  
*Richard Upjohn, Architect*





LITHOGRAPHIC RENDERING OF CATHEDRAL OF ST. JOHN THE DIVINE, BY LOUIS RUYL  
*Ralph Adams Cram, Architect*





Print by George C. Miller

Size of Original 17½" x 24"

LITHOGRAPHIC RENDERING OF APARTMENT HOUSE, BY JOHN RICHARD ROWE  
*J. R. Rowe and R. R. Rowe, Architects*



face. If a roller charged with oily ink is next passed over the whole, the ink, refused by the moist, clean stone, will adhere only to the mark, which can then be printed off onto a clean sheet of paper by the application of suitable pressure. If the hypothetical mark be expanded into a drawing the principle remains the same, and we can make a print which will be exactly the same as the drawing except that it will be reversed.

In practice it has been found that the best surface upon which to work, and which also yields the most perfect prints, is the grained Kelheim Stone used, curiously enough, by Senefelder, the originator of the process, for his earliest experiments, about 1800. Etching went through a number of stages before copper was hit upon as the best metal upon which to work, but in lithography the ideal material has been in use since the beginning. Any draftsman who has used the medium can testify that there is no other so sympathetic and so susceptible of delicate manipulation. Its fine, creamy, even texture is an inspiration in itself. In the words of Bolton Brown, the well known artist lithographer, "Drawing asks for a flat surface, and the stone is flat, incredibly, beyond any piece of paper ever dreamed of. The surface drawn on must be abrasive, in a way exactly suited to the substance marking it; and the crystalline stone is the very ideal of abrasiveness as the chalk is of the thing to be abraded by it. Every faintest or fiercest pressure or swerve of the hand is ineradicably recorded and goes down the ages in the print."

The surface of the stone, before it is drawn upon, must be given an even grain by grinding it with an abrasive. The usual method is to apply sand or carborundum of any desired degree of fineness, mixed with water, to the stone. A second stone is then placed on top and the grinding proceeds with a combination of rubbing and rotating until the old work is removed and the fine new surface is produced. Incidentally the surface of the grinding stone is prepared at the same time. It should be noted that the grain produced is not the natural grain of the stone but is the grain of the abrasive. It may, therefore, be varied within quite wide limits by employing fine or coarse sand or carborundum.

When washed carefully with clean water and dried, the stone is ready to receive the drawing or to have a drawing made on paper transferred to it. If the drawing is made direct it may be laid out with charcoal, Conté rouge crayon, or some other greaseless medium. Conté rouge is, perhaps, preferable, in that the red color will not be later confused with the lines of the drawing. In working on the stone a piece of light felt will be found convenient both to protect the stone from contact with greasy skin and to protect the arm of the draftsman from the cold stone.

The drawing is made either entirely or partly freehand, employing a straight edge and triangles, however, when necessary. Erasures are possible but not advisable. Scratching with a knife will take out highlights and may be used to lighten passages, but the grain is, in this case, removed along with the crayon and the parts affected may not be drawn

on again. It is possible to make erasures and still preserve the grain by using a small piece of lithographic stone together with sand and water rubbed on locally. Small defects can be readily picked out with a fine, sharp, needle.

Crayons and pencils of several makes are to be found on the market, but for ordinary work those made by Korn will be found satisfactory. They come in various degrees of hardness to suit the requirements of the work in hand and the tastes of the draftsman. The paper pencil is probably best for work in the drafting room as it may be easily sharpened and does not become softened by the heat of the hand. The ingredients used in the best crayons are soap, wax, oil, and lampblack, proportioned in accordance with the manufacturer's formula.

When the drawing is complete on the stone it must be prepared for printing. Of course the draftsman will not, in all probability, have anything to do with this part of the process but it may be of interest to him to know how it is done. Lithographers—and by that term is meant printers of lithographs—vary in the methods they use, each man having his own peculiar procedure. The method described here is that employed by George C. Miller, a well known lithographer in New York, to whom we are indebted for most of the prints herewith reproduced.

First of all a mixture of gum arabic water and weak nitric acid is flowed freely all over the stone. This is known as the "etch", but it is not an etch in the same sense as the etching bath used on copper plate. The acid serves to fix the grease of the drawing on the stone, while the gum arabic fills all the pores of the bare stone and gets down in between the grains where it is drawn upon, "holding the drawing in place" during subsequent treatment. The gum also has a de-sensitizing effect upon the stone so that it will have much less attraction for grease after treatment.

The etch is allowed to dry on the stone, the surface of which is then washed all over with clean water. While it is still moist a pure solution of gum arabic is spread on, wiped down smooth and allowed to dry. This treatment makes certain that all the bare parts of the stone are properly protected with gum arabic, but leaves the drawing itself uncoated, for gum arabic has no affinity for grease.

The next stage is a spectacular one. Turpentine is applied and the drawing apparently dissolves forever in the oleoresinous fluid. When wiped off and rubbed down smooth and dry the stone appears as if never drawn upon. If the artist is inexperienced, and happens to be present at this stage, he cannot avoid the traditional sinking sensation in his stomach, and perhaps his heart skips a beat or two. The labor lovingly spent on his drawing seems all for naught, for has he not with his own eyes seen it disappear? What really has happened is that the coloring matter of the crayon is gone, but most of the grease remains fixed on the stone, ready to take the ink from the roller when it is applied.

Before applying the ink the stone must, of course, be wet all over with clean water in accordance with our theory, so that the ink will take only upon the



PENCIL POINTS



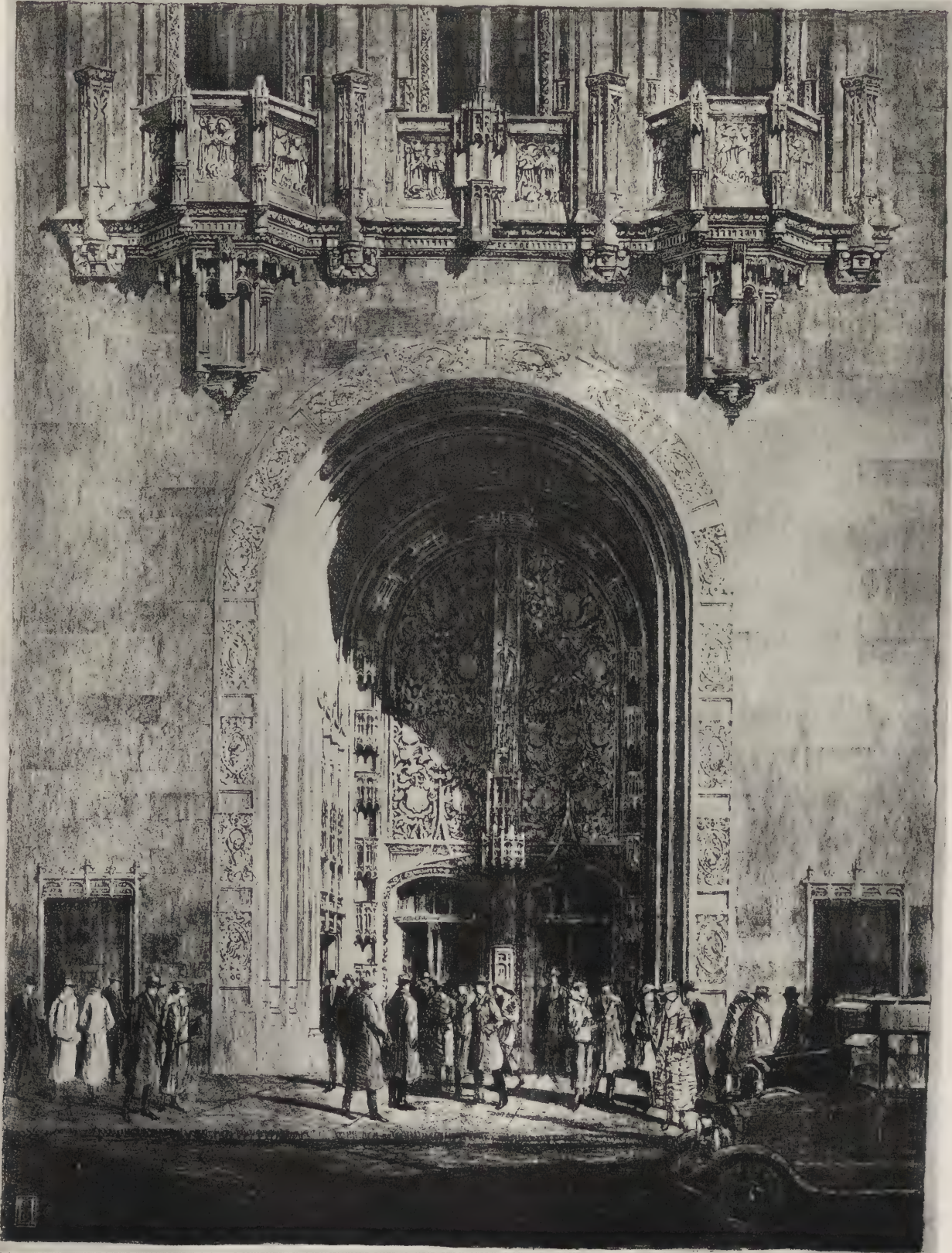
Print by George C. Miller

Size of Original 17½" x 24"

LITHOGRAPHIC RENDERING OF DOORWAY OF A COUNTRY RESIDENCE, BY HOWARD LEIGH  
*Walker & Gillette, Architects*



ARCHITECTURAL USES FOR LITHOGRAPHY



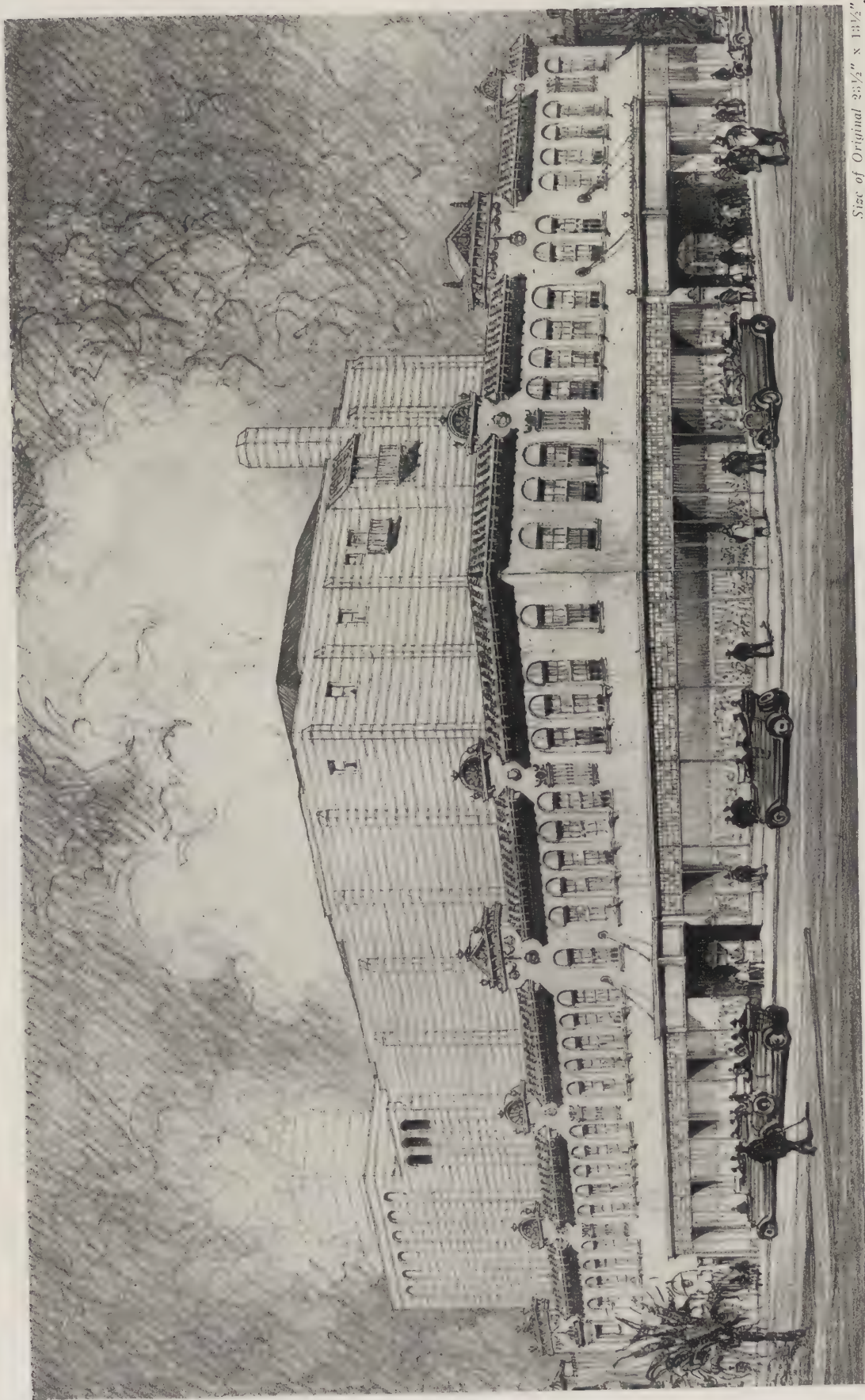
Print by George C. Miller

Size of Original 22¼" x 29½"

LITHOGRAPHIC RENDERING, CHICAGO TRIBUNE BUILDING, BY BIRCH BURDETTE LONG

John Mead Howells & Raymond M. Hood, Architects





Size of Original 25½" x 13½"

LITHOGRAPHIC RENDERING OF THEATRE BUILDING IN NEW ORLEANS, BY JOHN RICHARD ROWE

*Thomas Lamb, Architect*

Print by George C. Miller





LITHOGRAPHIC STUDY BY CHARLES Z. KLAUDER

drawing, while the damp, bare stone remains clean. The ink is applied by means of a roller of wood, surfaced with grain leather. This operation, while seemingly simple, demands no little skill on the part of the printer, for the ink must be applied evenly, of the right strength, and with care lest the edge of the roller produce streaks. The stone, during the inking, should rest on the bed of the press ready for printing, so that when the experienced eye of the printer tells him the ink is of sufficient strength, there is no time lost unnecessarily before making the impression. When ready to print, a sheet of clean printing paper, previously moistened if thin, dry if thick, is laid on the stone, backed up with a sheet of dry, soft paper and a large sheet of red press board. The press board is lubricated with grease so that the scraper of the press will pass easily over it when the stone is run through under pressure.

The bed of the press is so mounted that it is capable of being raised or lowered several inches by means of a powerful lever and toggle, and rolled through under the scraper by means of a rack and gear train. When the press board is in place and lubricated, the bed is moved forward until the scraper is over the edge of the stone, but not up to the edge of the drawing. The bed is then raised and the amount of pressure to be given is regulated by means of a hand screw which raises or lowers the arch of the press carrying the scraper. The right amount of pressure is a matter which will be determined by the experience of the printer. When all is ready the lever is thrown over hard and the bed of the press rises, bringing the face of the press board into contact with the scraper. The bed is then run rapidly through, care being taken not to stop until the scraper has passed entirely across the

drawing, but not quite to the end of the stone. If the scraper should ever accidentally slip off the edge of the stone while the pressure was still on, it can easily be appreciated that breakage would probably result.

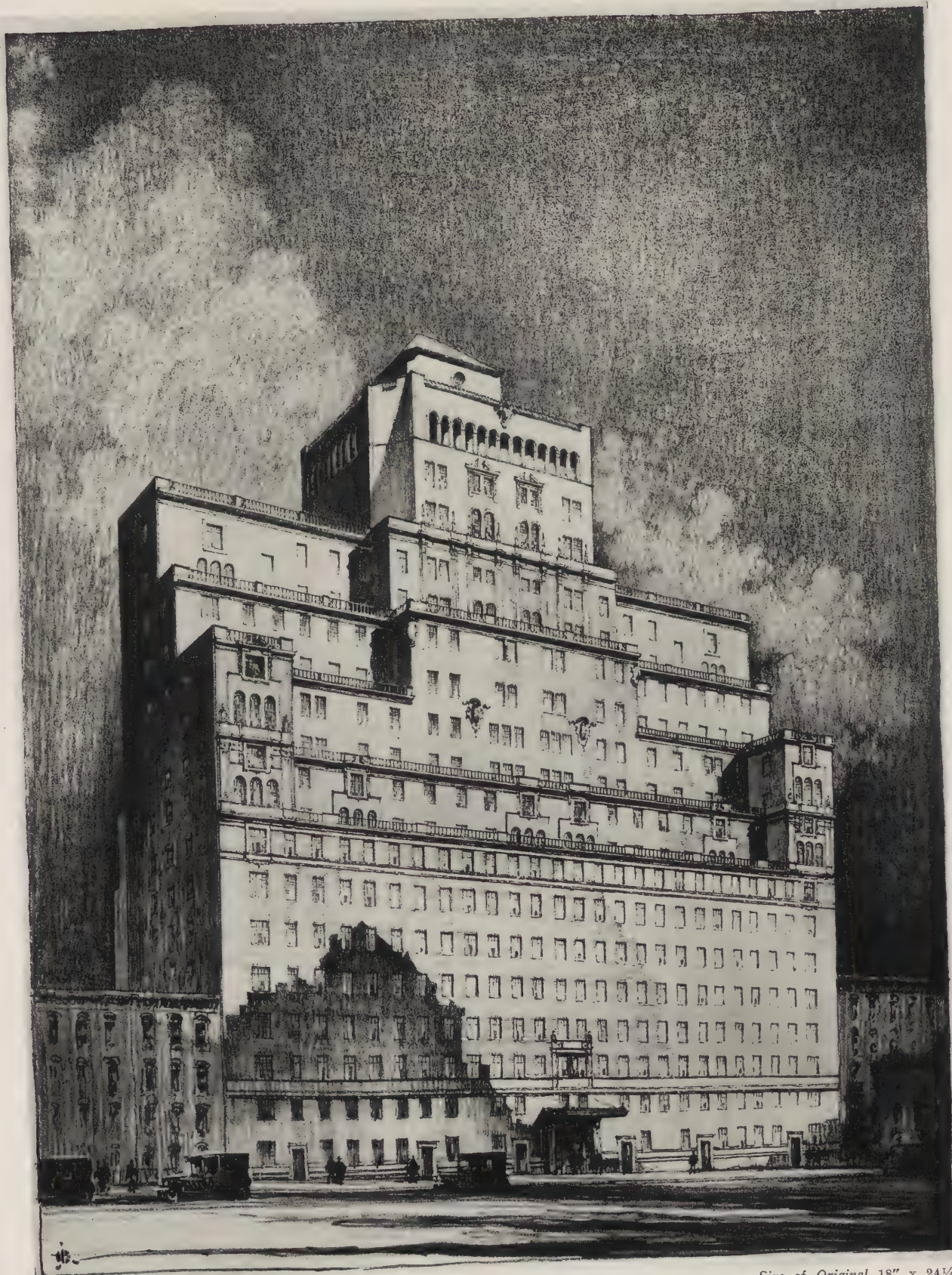
The pressure is now removed, the bed is rolled back to its initial position, the press board and backing paper lifted off, and the proof carefully pulled from the stone. The first few proofs will probably be lacking in strength, but after four or five have been taken the values obtained should be nearly perfect. Printing may be continued as long as desired, but when it is over for the day the stone must be rolled up with ink and gummed down with gum arabic before it is put away. Otherwise the drawing will not "stay in place."

Next to the stone, the best drawing and printing surfaces are zinc or aluminum sheets, which are to be had, already grained, from dealers in lithographic supplies. These sheets are convenient to work on, as they are light in weight and may be easily carried around. They are also much less bulky than the stones and hence easier to store away. Their chief disadvantages as compared to stone are that erasures and changes cannot be made on them and that their gray color makes them harder to work on. After working for awhile on metal, however, the draftsman learns to allow for the difference in color between the drawing surface and the paper to be printed on, so that he can control his values without great difficulty.

The architectural draftsman, working in his office or studio, far from the shop of the professional printer, can make his drawing for lithographic reproduction on practically any of the ordinary drawing papers, provided he uses a greasy pencil or crayon and does not make erasures. On specially prepared transfer papers which are coated with a sizing of



PENCIL POINTS



Print by George C. Miller

Size of Original 18" x 24 1/4"

LITHOGRAPHIC RENDERING, DRAKE APARTMENTS, NEW YORK, BY JOHN RICHARD ROWE  
*Emery Roth, Architect*





Print by George C. Miller

Size of Original 11" x 17½"

LITHOGRAPHIC RENDERING, STEINWAY BUILDING, BY JOHN R. ROWE  
*Warren & Wetmore, Architects*





Print by George C. Miller

Size of Original 14" x 25"

LITHOGRAPHIC RENDERING OF ALLERTON HOUSE, BY BIRCH LONG  
59th Street, New York. Murgatroyd & Ogden, Architects



ARCHITECTURAL USES FOR LITHOGRAPHY



*Print by George C. Miller*

*Size of Original 21" x 34½"*

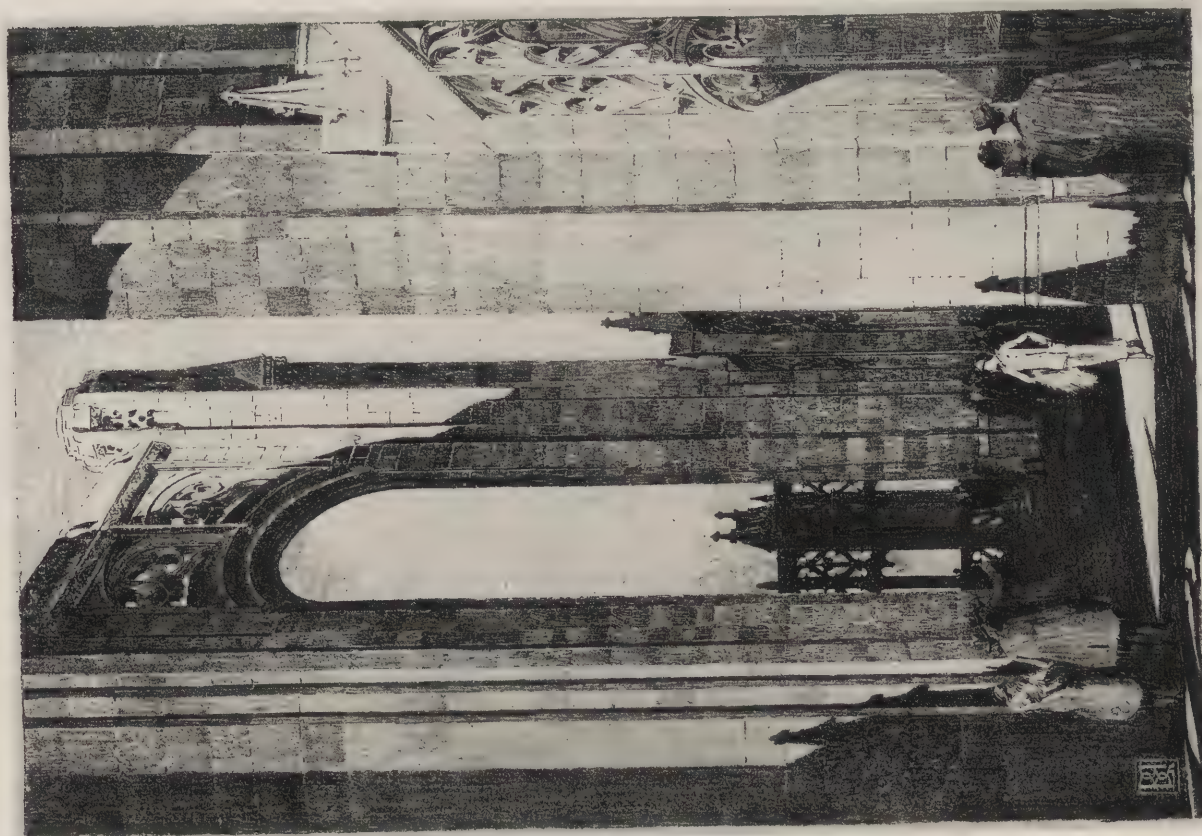
LITHOGRAPHIC RENDERING, CHICAGO TRIBUNE TOWER, BY BIRCH LONG

*John Mead Howells & Raymond M. Hood, Architects*





LITHOGRAPHIC STUDY BY CHARLES Z. KLAUDER  
Size of Original 6" x 8½"



LITHOGRAPH BY BIRCH BURDETTE LONG  
Size of Original 12" x 17"





Print by George C. Miller

LITHOGRAPHIC RENDERING OF THE BREAKERS HOTEL, PALM BEACH, BY BIRCH BURDETTE LONG  
*Schultze and Weaver, Architects*  
 Size of Original 19¼" x 7½"



## PENCIL POINTS

starch, parts of the drawing may be removed by scraping or by applying Chinese white, but these parts should not again be drawn on if perfect prints are desired. The drawing made, it can be sent *rolled* in a mailing tube to a reliable printer of lithographs who will transfer the design to a stone and print off any desired number of copies, each of which is an exact fac-simile of the original. If the printing paper is the same as that drawn upon, the reproduction is absolutely autographic, with no differences detectable by ordinary means.

The limit of the size of drawings which may be made for lithographic printing is controlled by the size of the stone which may be taken in the ordinary press. The largest stones used on these presses are about two feet by three feet, and, since there should

be a margin of at least an inch all around on the stone, it is not advisable to exceed twenty-two inches by thirty-four inches for the drawing.

In many cities and towns of this country there may be found commercial lithographers' plants, but it is probable that only a few of these plants could be persuaded to undertake to handle the small number of prints ordinarily needed by the architect. Furthermore the average printer of commercial lithographs is not in entire sympathy with what the architect wants. To get the right sort of prints requires that the work should be done by a skilled craftsman on a hand press. The writer of this article will be glad to furnish, on request, the names and addresses of some printers who have been found satisfactory for this type of work.



SKETCH BY CHARLES Z. KLAUDER



# ARCHITECTURAL SUPERINTENDENCE

## THE MAN AND HIS WORK

*By W. E. Parfitt*

*Through the courtesy of Mr. Le Roy Barton we are permitted to publish the paper delivered by Mr. Parfitt, Architect, before the Architectural Students' League of Brooklyn in May 1890. We feel that what the author said thirty-six years ago is as applicable to the subject of superintendence today, as when it was delivered—EDITOR'S NOTE.*

FOR THE BETTER DISCUSSION of my subject, I propose to divide the subject into The Man, and His Work.

Webster defines a superintendent as one who has the oversight and charge of something, with the power of direction. If he had himself been an architectural superintendent, he would have greatly enlarged on his definition and added: one who must have power and control over himself and over others.

There is no profession which calls for so many qualities of head and heart as a successful architectural superintendent. Aside from a multifarious knowledge of all kinds of materials and ways and means, also of all the known laws of mechanics, health and the sciences, he must know men, and how to deal with them; how to impart knowledge; to cultivate that kind of respect which will command a willing compliance with his orders; be familiar in manner, yet reserved; winning, yet forceful; pliant, yet strong; having well-grounded convictions, yet quick to learn, and adjust himself to new or untried environments; possess the tact of learning, yet at the same time teaching the person from whom he is learning.

He must well weigh his decisions, for often great consequences follow his orders. He must be so well grounded in his duties as to call for respect and willing obedience from the contractor, foreman or workman, even from those who may dissent from his opinions; possess that peculiar winning way of inspiring confidence in both client and contractor; be ever ready to patch up quarrels, both petty and large; smoothing out rough and difficult problems which are ever arising under his work.

Have a genius for invention, especially in the working out of difficult problems, and overcoming seeming impossible difficulties, for is he not consulted mainly when the contractor sees no possible way to overcome difficulties which so often present themselves? He must be an artist, a good critic and a mechanic, qualities which seem never to go hand in hand. He must possess a good business training, with a thorough knowledge of finances, for does not his work often call for these traits, as when the man of dollars requires some changes, or a better quality of materials or work than can be construed from the contract? Then he must use that knowledge of finance to convince the contractor that by some change, or in some way unexplainable here, convince him it were best to carry out the new suggestion, at no extra cost; or, on the other

hand, he must be ready to estimate costs of extras to his client, and to do it in such a way that the client will be fully convinced it is right, and either require the work, or abandon it and be thoroughly satisfied either way. Woe to him if he be found wanting in this regard or is caught napping, for then will he have lost that respect, without which he will fail of success.

He must know how to lead the good housewife, who feels she only knows what is best about closets, wardrobes, location of windows and doors, gas outlets and spaces for furniture, selections and harmonizing of colors which are best adapted to her tastes or complexion, and inspire her in such a manner that she will be led by him, and not he led by her; for if she ever gets the best of the architectural superintendent, he is lost and had better give up. He must also know how to explain matters in such a way as to convince his client that the job for which he is paying \$1,000 is fully half as good as the one for which another paid \$6,000.

He must be above all things honest, truthful and frank, above reproach in character and sweet of disposition.

He must possess the rare talent of lovingly compelling men to do right, forcing from them for him their best behavior, however venal they may be, and draw about him and the work in his charge a willing compliance to do right; to draw from all classes the best that in them lies, for do not all men have some good side, even though sometimes it is very small; it is, therefore, his duty and work to keep that side ever to the front, for the work in his charge.

He must know how to cheer the humblest workman, and get his smile and good day from all who shall work under his direction, exercising that magical faculty of harmonizing the selfish interest of the various contractors when there are several working under his care, and get them willingly ready to do the best for him, and smother selfish feelings for the good of the work, for his sake.

He must be an expert in the most difficult, and yet the humblest, work under his care; have a ready knowledge of tools, and how to use them, for in no way will the artisan be won so easily as by a superintendent who can take his tools in hand and execute the work in the manner he requires; for there is no workman or contractor so lost to all respect as to be outdone by a superintendent who knows how to do the task he requires.



## PENCIL POINTS

His speech should be kind, yet firm, and be ever ready with a pure jest to illustrate his requirement, and thus promote a spirit of cheerfulness and right and well doing so essential to success.

These are only a few of the qualities of head and heart which must be the stock in trade of a successful architectural superintendent; with these he will be invaluable to client, employer, contractor and workman, and without them he will fail to be a success.

To young men I would suggest they cultivate a spirit of love for their fellow men, however humble they are, and thus beget their love which will keep him out of difficulties, which no amount of knowledge can, but by the possession of both, will his usefulness be so much the more enhanced.

So much for the man; don't say I have set his ideal too high. That it is high, I admit, but it is possible, if he will first get full of love, then will he be supplied with the tact and genius to mould men, next get his knowledge and never be too proud to learn, and if he cannot do so without showing it, be honest and acknowledge his ignorance, and friends will rise up on all sides to help if his heart be in the right place.

If I have defined a wide range in the disposition of the man, how much wider must be his knowledge? I can, in a talk of this kind, only touch on a few of his requirements: In the first place, he is expected to know all about the different characters of the soil on which the foundation of a building must rest. If it is yellow clay it were well to excavate below it, and if that be not possible, he should widen the footing of concrete, and make a trench convex to prevent the clay slipping from under it, and see well to it that the ground be properly drained, or fill against the walls as soon as built, to keep away all water which may soften the clay and permit the foundations to sink and force out the clay; for clay, if kept dry, will make a fair foundation for a light building. I never accept the responsibility of resting a building on clay, but explain to my client the possible dangers, and have him decide to accept it.

The most difficult problem about foundations to my mind is a bottom composed in part of hard pan, no matter how good, and in part rock or large boulders, for if these difficulties arise, he must cope with them alone. In such a case, I suggest that he cover the rock or large boulder with a layer of dry sand, varying from two to six inches in thickness, according to the unyielding character of the soil on each side of the rock, and the weight to be borne. The sand will, if skillfully used, afford sufficient yielding to counterbalance the yielding of the ground.

Another difficult problem will be when the ground is in part hard pan, partly rock and partly soft mud, into which he must drive piles; for such a condition of affairs, I suggest sand on the piles as well as the rock, if they be driven home.

Yet another difficulty is when the foundation

must be placed on made ground or soft mud, and the character of the building or funds of the client will not allow of piling. In such a case, if there be water, I would suggest laying heavy planking, first crossways of the foundation, and then again parallel with them, and if no water be present, use a very wide course of concrete and railroad iron, or cheap sections of iron in as long lengths as possible, to be embedded in the concrete, the width and thickness of the footing, and quantity of iron required to be computed on the basis of the yielding character of the earth, and weight of the superstructure to rest on it.

If the foundation is to rest wholly on piles, the superintendent must see to it that all piles are driven home, or until a hammer weighing from one to two tons, falling from a height of from twenty to forty feet, rebounds off the head of the pile. Next, he must be sure to cut off the pile true and level below the water line, then excavate to a depth of from ten to fourteen inches below the pile head, and fill up to the top with concrete. On that should be laid either large base stones, covering four or more piles, or heavy planking; planking, however, should never be used, except it be set below the lowest water line. The number of piles, and the size and distance apart, the thickness and size of base, stone or planking must depend on the weight it must bear, and be computed on the rules laid down by experience and common sense, and, if possible, he should consult some work on engineering, or the experience of some well-versed fellow craftsman.

I need not enlarge on his duties if the character of the site be all hard pan, which means earth largely composed of gravel sand and some clay, or all sand, which I deem to be one of the best and easiest of all bottoms to work on, or all rock. In all cases, and under all circumstances, the superintendent should demand and secure as level a surface as possible.

There are other difficulties to be met with, such as providing for extra high walls, towers or shafts, or piers which will carry extra weights, when these are built into or adjoining walls not carrying more or little more than their own weight. In such cases he must see well to it that such heavier parts are not bonded into the lighter work, or cracks will appear and present to the eye seeming weaknesses, which are only the extra yielding of the ground under the heavier weight. The supporting power of the best hard pan below atmospheric influences is computed by Trautwine from two to three tons per square foot. Even with less weight than that I have noted a yielding will occur of from one-quarter to one-half inch. More than that may be safely used providing it is not objectionable, if there be an equal settlement throughout the entire structure, hence the importance of providing for all parts of walls, piers, towers or tall chimneys, being detached or allowed to settle independently of adjoining walls.



Concretes, or cement, next will claim our attention; this may be classed under the following heads: Quick setting, slow setting, or cements which expand in setting, or, on the other hand, contracts in setting. If I have very heavy work, such as, for instance, the building of a massive bridge or the towers for the Brooklyn Bridge, I should use slow setting cements, which would be entirely unfit for the foundation of a good house, hence do not be misled by the statement on some of the Rosendale cement barrels, by the picture of the Brooklyn Bridge and the claim that it was selected for that purpose, because a good quick-setting cement would be unsafe as mortar to lay between very large stones; it would set too quickly and be what is known as lumpy, and cause cracks to appear. In such a place a slow setting cement is the best, as it will spread itself over the entire surface of the joint and fill all the interstices.

The superintendent should use his best judgment in these matters and require a cement suitable to meet the demands of his job. For ordinary good jobs I always use a blue-colored, quick-setting cement, which is commonly called Portland, from a light blue stone found in Portland, England.

Having arranged this matter the superintendent must use the greatest care and demand that the cement or concrete be made up in a clean place with pure, clean sand which will not soil water to be mixed with it, as soil or mud will destroy and render it quite useless. I should like to explain to you the process of what is commonly called the setting of cement, which might be more rightly called the process of crystallization, hence water or moisture is very essential. Concretes or cement mortar should never be allowed to dry out; if it does it is little more than so much mud. The superintendent must know how to test cements and detect poor qualities or slaked cements, that is cements which have been exposed to moisture and air. I will say in passing, that if the cement be hard to get out of the barrel, or be very light, reject it as unfit for use, and test it in cubes to prove its unfitness.

What I have said about cements may also be said of lime. It must not be allowed to dry too quickly or be air slaked, or made up with soil or mud, for a similar process goes on in the crystallizing of the soluble lime.

The superintendent must also learn to know a good brick from a poor one. A brick may be well burned and yet be poor, if it be made in a machine which forces a quantity of air into the clay and turns out a light weight brick. Therefore, a good brick is heavy, gives out a bell-like ring when struck together.

Of the variety of stones, I advise the superintendent to consult works on their crushing character, but this may be said: a first quality building stone shows no laminations or layers, and is what is called liver rock. Simple tests of its tensile or crushing strength may be made by the hands, and may serve all ordinary purposes.

I would suggest to refuse all stones which give off a strong smell of sulphur upon wetting, as it then contains more or less of clay. A simple magnifying glass will reveal the good qualities of stone by showing the particles of sand held together by crystals, which is nature's concrete. A good durable stone is bright-looking, and is generally heavy; a poor stone is dull and generally light. The power of absorption of water I do not deem a good test, as the stone may be made of pure sand and crystals half formed; such stone often hardens by exposure and improves by age.

I never allow stone to be laid in the wall off its bed, or to be more explicit, in any other way than it laid when in course of formation.

In the matter of granites, the superintendent must be able to detect knots and shakes and reject such, especially stone having the latter, and the former if he does not want an unsightly effect.

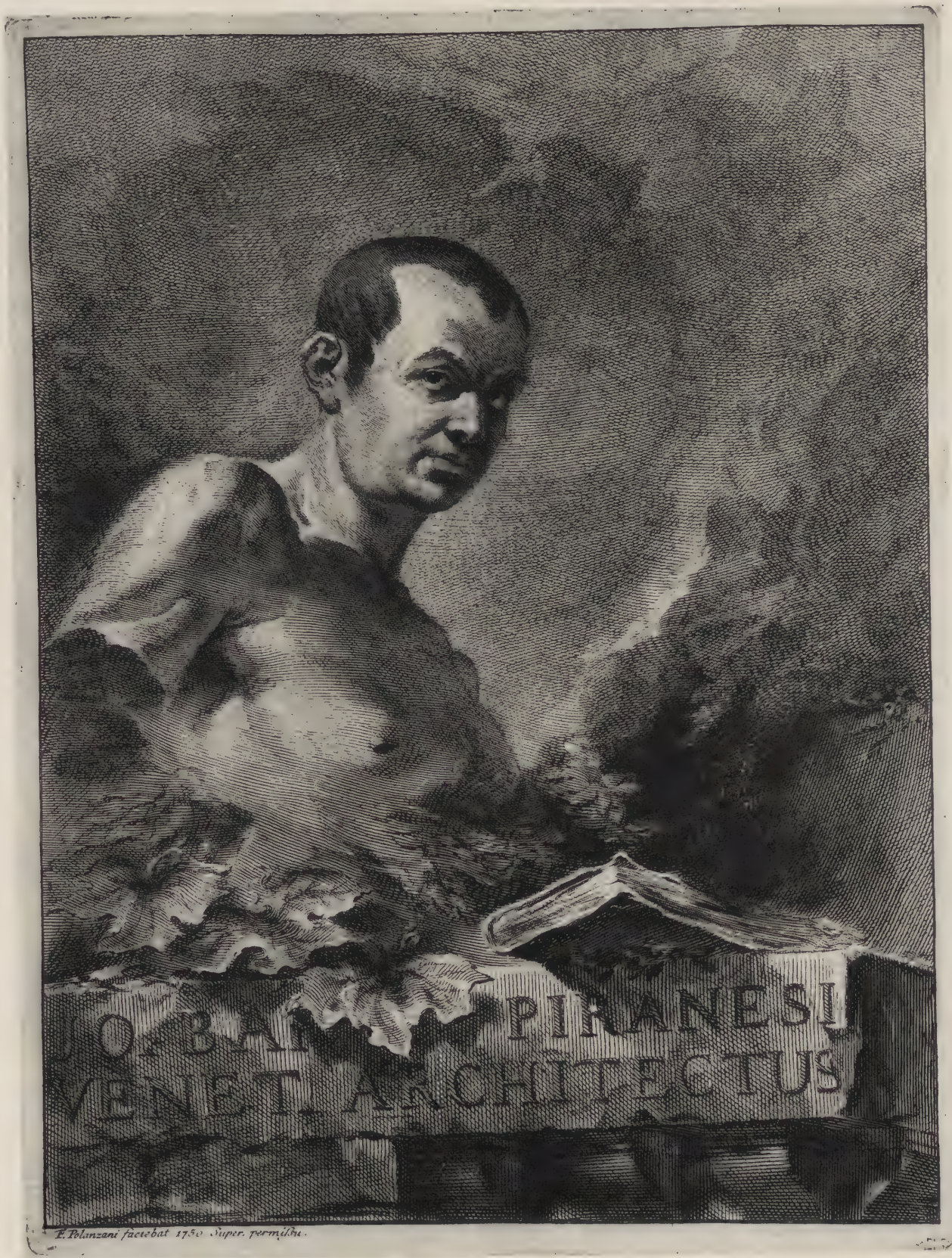
The superintendent must know what is bonding, that is, making the wall homogeneous, and when and where to use anchors, and how they be made, their lengths and strengths. Know what constitutes good workmanship and demand it in the particular parts; know how to make mortars, the proportions of cement or lime to be mixed with sand, as this varies with the coarseness of the sand, and requires to be stronger for the parts which will be required to do the most work. He must know all about lathing and the mixing of mortar for plastering, and detect if the proper quantity of hair is used, and if the mortar is forced against the lath with sufficient force to form a clinch at the back of the lath. Know all about the white finishing and how it should be made and applied to insure a hard, firm and smooth surface for plastering.

Such, for instance, the tensile and crushing strengths of the various kinds of wood, the principles of construction, and what constitutes good and safe framing; know the names of all kinds of woods, and their treatment as a finish; have a pretty thorough knowledge of carpenter work, of roofing, and the values and durability of the various metals, and how to use them to prevent any galvanic action; to know the gauge of tin, sheet iron, copper and lead, for they differ in each kind of metal.

He must be an expert in plumbing and sanitary science, know all about paints and varnishes and their proper use; be able to detect errors and how to rectify them in steam heating, both high and low pressure, and a forced or simple return system.

Now from the few points I have just touched upon it can be readily understood that a successful architectural superintendent must be an all-round man, having a good memory, quick perception, a thorough education, a perfect temper (for it will be often tried), be in every respect a thorough architect and gentleman, or to sum up with the words of one of our great poets, be one of God's noblemen.





PORTRAIT OF GIOVANNI BATTISTA PIRANESI  
ENGRAVED BY FELICE POLANZANI. ORIGINALLY USED AS FRONTISPIECE  
TO "OPERE VARIE" (1750) AND "ANTICHITÀ ROMANE". (1756.)





## GIOVANNI-BATTISTA PIRANESI

PENCIL POINTS ANNOUNCES THE ACQUISITION OF A COMPLETE SET OF VOLUMES OF THE MASTER'S ENGRAVINGS

THERE IS A GENUINE DELIGHT to be derived from the study, the contemplation, even just contact with the magnificent and venerable works of Giovanni-Battista Piranesi. These delights have been afforded us by the acquisition by PENCIL POINTS of an almost complete collection of fresh and early prints, made before 1778 on thick laid paper, during G. B. Piranesi's lifetime and published in the first Roman editions.

We have always felt the power and wonder of Piranesi's work and we hope to convert those who may not yet be ardent admirers of this master's engravings to our enthusiasm. Our possession of 865 of the total of 991 engravings listed in M. Henri Focillon's *Catalogue Raisonné* of Piranesi's etched plates will make it possible for us to give our readers an opportunity of seeing, if they want to, an almost complete set of Piranesi's works and of possessing reproductions from impressions made while the plates were still lightly etched and before the many re-bitings which were caused by subsequent editions of his works.

There are several posthumous Roman editions, printed after G. B. Piranesi's death in 1778, and a first Paris edition (1800-7) issued by his sons, Francesco and Pietro Piranesi, who were their father's collaborators. Piranesi left an engraving establishment, that is to say a firm of engravers, in full swing at his death. It is pleasant to think that his heirs carried on the task left unfinished by the author and devoted their energies to enriching and clarifying his work in all its branches. Following the first Paris edition, there were intermediate Paris

editions published between 1807 and 1835 with new Arabic numbers engraved in the upper or lower right side of the plates. From 1835 to 1839 Firmin-Didot of Paris used the plates for an edition. The plates were transferred to the Calcografia Camerale in 1839. Modern impressions continue to be printed from the plates by the Regia Calcografia at Rome.

The collection of Piranesi's engravings is much larger than any collection ever before created by one family of artists, and when one endeavors to discriminate as to the ones belonging to each and the exact stage of each impression in the various collections in the museums, and in the libraries of the great English houses, and the scattered prints in private and dealers' collections, the task is bound to be formidable.

To these difficulties are added the changes made by G. B. Piranesi himself in the various editions of his work. In each work published by G. B. Piranesi, the plates have been classified in several ways, first by the author and afterward by his successors. Roman numerals, Arabic numerals, notes etc., indicate the desire of these various editors for order and clarity. Inversions, repetitions and omissions in the numbering are frequent. The French libraries, which were for a long time the depositaries of the plates, added a new series of Arabic numbers to the original Roman ones.

Piranesi's engraved catalogue of his own works is the first and most valuable of all. Until about 1770 it was a reliable guide in spite of the fact that it mentions plates which appear to be lost, since none of the great museums of Europe nor any of the





TEMPIO DELLA TOSSE. PLATE 73 "VEDUTE DI ROMA" BY G. B. PIRANESI, 1764.

Size 18 $\frac{1}{8}$ " x 24 $\frac{1}{2}$ "—Second State.





TEMPLE OF THE SIBYL, TIVOLI. PLATE 63 "VEDUTE DI ROMA" BY G. B. PIRANESI, 1761.

Size of Plate 17 $\frac{1}{8}$ " x 24 $\frac{1}{4}$ "—Second State.





THE PORTICO OF OCTAVIA: INTERIOR OF ENTRANCE PORCH. PLATE 59 "VEDUTE DI ROMA" BY G. B. PIRANESI, 1760.

*Size of Plate*  $21\frac{5}{8}$ " x  $16\frac{1}{8}$ "—Third State.





THE FORUM OF AUGUSTUS. PLATE 42 "VEDUTE DI ROMA" BY G. B. PIRANESI, 1757.

Size of Plate 24 1/8" x 15 3/4"—Second State.





DETAIL AT FULL SIZE OF ORIGINAL ENGRAVING SHOWN ON PAGE 231

*"The Forum of Augustus" by G. B. Piranesi*

private collections that one may study through catalogues have owned them or possess them today. The catalogue, however, which forms the chief basis for a list of the work of G. B. Piranesi and his sons is in the British Museum Print Room, (1792). It shows thirty-two sections, distinguished by Roman numerals. The PENCIL POINTS collection contains all of the various titles and an almost complete number of plates from each series together with many rare numbers.

The general subject of Piranesi's life and works has been carefully studied by Mr. Arthur Samuel, (London, 1910), Mr. Albert Giesecke, (Leipzig,

1911), Mr. Henri Focillon, (Paris, 1918) and Mr. Arthur M. Hind of the British Museum, (London, 1922). Both Mr. Hind and M. Focillon point out that the previous bibliographers have committed many and serious errors which are most disconcerting to the man who has undertaken the laborious business of making the necessary comparisons in a great variety of collections of Piranesi's works with the purpose of continuing the detailed catalogue and of fixing the origins, dates and contents of Piranesi's engravings in relation to existing documents.

*The Antichita Romane de' Tempi della Repubblica* of 1748 is the earliest dated work in which Piranesi





DETAIL AT FULL SIZE OF ORIGINAL ENGRAVING SHOWN ON PAGE 234

Plate 125 of *Vedute di Roma* by G. B. Piranesi

is shown as publisher. The *Opere Varie* and the *Invenzioni Capric de Carceri* are earlier works published in Bouchard's editions. In the *Carceri* Piranesi used etching technique more purely and the pre-eminence of the "Prisons" Series as a work of architectural fancy is due to its remarkable evidence of a genius working at the fever heat of imaginative power.

The largest and probably best known series of Piranesi's etchings are the *Vedute di Roma*. These plates were begun early in his career and he was working on the Series up to the time of his death. There are 137 views; 135 produced by Giovanni-

Battista and two by Francesco. The wonderful *Pianta di Roma*, made in 1778 is sometimes included with this series. Mr. Hind is able to refer to impressions from the one plate that was used throughout Piranesi's lifetime, showing thirteen different states,—the new entries being engraved on the plate as the works were published.

In addition to the complete set of the above works, the PENCIL POINTS collection also includes *Trofei di Ottaviano Augusto* (10 plates of the second edition), 1753, *Le Antichità Romane* (218 plates), *Le Rovine dell' Castello dell' Acqua Giulia* (1761), *Le Magnificenze dell' Architettura Romana*,





L'EDIFICIO TA. Vede anche l'opera di G. B. Piranesi, "Vedute di Roma", 1776. *See also the work of G. B. Piranesi, "Views of Rome", 1776.*  
 Acquedotto, in occasione di Fede per l'impugnazione delle vecchie, non al Tevere. *Acqueduct, in occasion of Fede for the impugning of the old, not at the Tiber.*  
 R. Piazza di Colonna, con statue di bronzo, e di marmo. *R. Piazza di Colonna, con statue di bronzo, e di marmo.*  
 D. Monumento a' due re, e a' due re, e a' due re. *D. Monumento a' due re, e a' due re, e a' due re.*  
 E. Fregate della Spagna, e della Francia. *E. Fregate della Spagna, e della Francia.*  
 C. Torre, con antiche statue. *C. Torre, con antiche statue.*

THE TIBER AT MOUTH OF THE CLOACA MAXIMA. PLATE 125 "VEDUTE DI ROMA" BY G. B. PIRANESI, 1776.

Size of Plate 26 1/4" x 17 1/2"—First State.







(1761); *Campo di Marti di Roma Antica*, (1762); *Descrizione e disegno dell' Emessario del lago di Albano*, (1762-4); *Antichità di Albano e di Castel Gandolfo*, (1764); *Antichità di Cora* (1764); *Diverse Maniere di Adornare i Cammini*, (1769); *Vasi e Cnadellabri*, (1778); *Rovine del Tempio di Pesta (Paestum)*, (1778-9), etc.

We are indebted to Mr. Hind for the following biographical notes which he has compiled in connection with his critical study and list of G. B. Piranesi's published works.

Giovanni Battista Piranesi was born in Venice on the 4th of October, 1720, but most of his life was passed in Rome, etching, writing, publishing and directing a workshop where he restored and sold antiques. He was educated as an architect under his uncle Matteo Lucchesi and under Carlo Zucchi and seems to have been proud of his profession and his birthplace, for many of his works are signed by an appendage of "Architetto Veneziano". Piranesi was twenty years old when he went to Rome. He studied etching under Giuseppe Vasi and worked in several scene painters' studios during the four years of his first unsuccessful stay in Rome.

Through the encouragement of Giuseppe Wagner, a successful engraver and publisher of Venice, Piranesi returned to Rome and founded a similar establishment. From this time on a continuous series of works, illustrating architecture and antiquities, issued from his studio.

There are no proofs of Piranesi's plates in such unfinished state that they show his method of working. The earliest states of which there are proofs are already completed subjects. These early impressions show that a light pure etching was the groundwork of his plates. They do not indicate, however, how he laid out his subject on the plate before etching. Comparatively few Piranesi drawings seem to have been preserved. The collection at the British Museum, Soane Museum and some half dozen drawings in the collection of Prince W. Argoutinsky Dolgoroukoff in Paris are the most noteworthy.

We have selected a few of the finest of the plates, considered from the standpoint of beauty of etching and composition, for publication in this issue. Many of the hundreds of Piranesi's architectural designs and views shows a power of imagination far beyond the immediate demands of the subject to be handled but in spite of his extraordinary faculty of invention he never allowed his topographical and archaeological plates to fall into the false picturesque. In his genius for brilliant effects of light and shade and power of chiaroscuro in the treatment of architecture he had an extraordinary dash and vitality of touch which made him a great draftsman.

Piranesi has been called the "Rembrandt of Architecture" and eminent authorities, among them Mr. Hind, feel that he has every right to the appellation.



*Avanzo del Pronao del Tempio di Giove Tonante. A. Avanzi del Tabulario*

*Piranesi Arch. di. inc.*



# THE PERMANENCY OF COLOR

By F. W. Weber

*Mr. Weber, who is Technical Director of F. Weber Co., Manufacturers of Artists' Colors, writes with authority upon the relative permanency of color of the different pigments used in oil and water color painting. His article should therefore be of interest to all draftsmen and students who have occasion to use color in their work.—EDITOR'S NOTE.*

THE STUDY OF THE COMPOSITION and chemistry of Artists' colors, vehicles and varnishes which today is of great importance, is unfortunately only too frequently neglected by the student and Artist. It is not necessary that the Artist become a color chemist, but a practical technical knowledge will aid greatly in assuring permanent and durable results, whereas the lack of it often proves a serious embarrassment, sometimes even during the Artist's own lifetime.

It is only comparatively recently that the manufacture of Artists' colors became an industry. Before this time the painter prepared his own products and no doubt welcomed the commercializing of this phase of his art. This severance of course was inevitable, due to the rapid progress of chemistry as a science, whereby an unlimited number of pigments, etc., began to broaden the Artist's field of selection. Today the student may choose from such a variety, that not to run into difficulties would be almost a miracle.

The Artist of the seventeenth and early eighteenth centuries was undoubtedly the most unfortunate. Chemistry about this time began to develop as a science, and during the ensuing years rapidly produced an exceedingly large number of many brilliant, but unfortunately also many unsafe, colors which during their introduction were usually offered in very impure form. The Artist welcomed the addition of such a variety to his palette and was necessarily forced to select by standards of brilliancy only. We also find that many colors appeared under several names, each manufacturer striving to have the pigment, or a modification of it, appear as a specialty of his own. For example, Prussian Blue, which was discovered by Diesbach in 1704, became known as Paris Blue, Berlin Blue, Bronze Blue, Mineral Blue, Chinese Blue, Milori Blue, and lately also as American Blue.

Pigments, in order to be classed as such, must be permanent to light, air, moisture, and gases. They must also be chemically indifferent toward each other in mixtures and must not suffer calculable alteration of hue in any technique. All durable pigments should also be insoluble in water or alcohol. Being permanent to light pre-supposes that the pigment will be absolutely permanent under ordinary diffused light, and also show complete stability when exposed to direct sunlight.

The student generally supposes light to be the worst enemy of permanence, though usually it is not as serious as climate, variations in temperature and atmospheric influences. A painting is seldom exposed to strong sunlight for any length of time, but

impure air, gases and moisture come in constant contact with the majority of pictures even in some of our largest galleries. A great many of the old masterpieces owe their destruction to disintegration, caused by the constant condensation and evaporation of moisture on their surfaces, which, carried on over an indefinite period, together with the action of air contaminated with sulphurous gases, etc., gradually brought about changes, impossible for light alone to have accomplished.

Pigments may be divided into two classes:

Mineral	{ Natural, such as the Ochres.
	{ Artificial, such as the Cadmium Yellows, Cobalts, Vermilions, Emerald Green.
Organic	{ Vegetable, such as Madder Lakes, Gamboge, Indigo.
	{ Animal, such as Sepia, Indian Yellow, Carmine.
	{ Artificial, such as Alizarin Lakes.

The *natural* and *artificial mineral* pigments form the most important group, as it is from this group that the most desirable pigments are obtained. From the natural mineral group the Old Masters obtained most of their colors, but today the colorman selects a large number of his best products from the artificial mineral group.

Of least importance to the Artist are the pigments of *organic* origin, among which the Madder Lakes, Indigo, Gamboge are perhaps the best from vegetable source. The many yellow lakes, such as Italian Pink, Dutch Pink, Brown Pink, etc., derived also from this source, are of little importance owing to their fugitive character and their instability in mixtures with many metallic pigments such as the White Leads, Chrome Yellows, etc.

Sepia, Indian Yellow, and Carmine are the most important pigments from *animal* sources. All three may be easily dispensed with; especially do I wish to warn the Artist against the use of Carmine. This pigment, although of such brilliance and individuality of hue, is very fugitive to light and readily decomposes in mixture with many metallic pigments, such as White Leads, Chrome Yellows, Yellow Ochres, etc. As it is an expensive color, it may be easily replaced by the very desirable Alizarine Madder Lakes.

The *artificial organic* pigments unquestionably furnish a larger number of pigments than all other groups. Since the accidental discovery of Mauve from aniline (a coal-tar derivative) in 1856 by the



English chemist Perkins, forming the starting point for the inconceivable number of dyes developed since then, most of the lake pigments produced with these dyestuffs unfortunately prove far too fugitive for use as Artists' pigments. The exceptions in this instance are the very permanent Alizarine Lakes, derived from anthracene, which is also a coal-tar derivative.

I have found that many artists are of the opinion that the Alizarine Lakes are aniline colors. The fact that aniline and also anthracene are both derivatives of coal-tar should not lead the Artist to believe that the colors obtained from these products are identical in their properties. The aniline derivatives such as Mauve, Magenta, etc., are not desirable owing to their instability and lack of permanence, but the Alizarine Lakes are chemically a different class of compounds and are very desirable, possessing high stability and permanence.

We have spoken above of Lake colors and I think it may be of interest to describe such a product. The derivation of the name lake is said by Pliny in his *Naturalis Historia*, A. D. 77, to be from the lac, or coloring principal, of insect origin, used by the early Italian dyers. In conjunction with compounds of tin and aluminum the dye was precipitated and fixed indelibly on the fabric. During the process of dyeing some of the lac combines with some of the tin and aluminum to form an insoluble compound, which produces a colored scum on top of the dye-vat. This substance, called by the Italian dyers *lacca*, was collected, dried and sold to Artists as a pigment. Soon the natural dyestuffs were found to yield variously colored lacca and methods were soon developed whereby the lakes were obtained direct and not as a residue or scum of the dye-vat. In fact, today the manufacture of lake colors is as important commercially as the dye industry.

A lake pigment is not simply a mechanical mixture of a base with a dyestuff, as this product would "bleed" the dye in water. Only a lake which has the dye fixed indelibly on a neutral base is desirable as a pigment. In practice the neutral base on which the dyestuff is fixed, is usually Alumina, Clay, Barytes, or Paris White.

The earlier lakes were obtained from natural coloring matters, such as lac, cochineal (carmine), Persian berries, Brazil wood, logwood, etc., but today the artificial or synthetic dyestuffs have almost entirely supplanted the natural coloring extracts, yielding innumerable brilliant colors, most of which are only of sufficient permanence to be used by the Artist for commercial work, if at all. Many of these lake colors are often employed to give stronger color to pigments, but their addition yields but temporary brilliance.

The Artist should be in a position to detect roughly at least the addition of harmful admixtures to his colors, as, for instance, the addition of fugitive dyes, or if colors, such as the Cadmium Yellows, have been adulterated with Chrome Yellows, or whether a pigment such as Cobalt, for which he

pays a big price, be actually pure Cobalt and not a mixture or cheap substitute, or likewise if Whites be unadulterated with Chalk, Clay, Barytes, etc., and whether a White be Zinc, Lead, etc.

The time has arrived when the Artist must know something of the composition of his materials. The new products appearing yearly tend only to lead into difficulties, unless their use be accompanied with the proper knowledge of their properties. Not only does the student or Artist owe it to himself, but future generations will look back with gratitude when examples of the work of various periods remain durable throughout the ages.

Why in this one profession should the study of the materials employed in the various techniques be so often thought of such little importance? We stand helplessly by and witness the gradual destruction of many of the finest examples of the various periods simply because the respective Artists knew nothing of the dangers of using unstable pigments, oils, etc., or were victims of the alluring, brilliant, unsafe products during their introduction. We may excuse the Artist of former times, but today there is no reason why the student should not reflect on the importance of preserving his work for the future. Sometimes the improper use even of durable materials has caused the Artist considerable trouble.

With a few bottles of reagents tucked away in the studio, the Artist may at any time readily test any color in question, at least for harmful adulterations or impurities.

The Artist should have a small bottle each of  
*Alcohol—Denatured*  
*Sodium Sulphide*  
*An Acid—Hydrochloric, Nitric or Sulphuric Acid*  
*Ammonia Water* or a weak solution of Caustic Lye.

The alcohol may be denatured alcohol, as this serves the purpose for all practical needs. It is used to detect the presence of adulteration with dyes, which, if soluble in alcohol, will color the alcohol. A color when treated with alcohol or water which does not stain these liquids would indicate no water or alcohol soluble dyes being present. Some dyes require a few drops of ammonia water added to the alcohol to draw them from the pigment.

If the pigment be in dry powder form it need only be shaken in a small bottle, or better a test tube, together with a small quantity of alcohol. Usually the color which the Artist examines is either an oil or water color. Seldom do the oils or gums prevent reaction with the above-named reagents. More definite results are, however, obtained by using the pigment in powder form, that is free from oils, or gums, etc. Water colors are easily washed free of these gums. A small quantity of the color is placed in a small container to which sufficient water is added to make a dilute solution. After thorough shaking, and after allowing the pigment to settle, the water should be poured off. It is important to note whether the water has become stained with color; this would indicate a partial solution of the



pigment or the addition of water-soluble dyestuff to the pigment.

Oil colors may be freed from oil or resins by washing in similar manner, using turpentine in place of water and then removing the turpentine by washing with alcohol. If the alcohol or turpentine becomes colored it would indicate adulteration with dyestuffs. Some pigments are in a very fine state of division and would require quite a time to settle, therefore much time may be saved by filtering the pigment from the turpentine or alcohol. In place of turpentine other solvents are often employed, such as benzol, toluol, xylol, ether, chloroform, acetone, amyl-acetate, carbon tetrachloride, benzine, etc.

Certain colors, such as Prussian Blue, have such strong tinting strength that more than one filtration is required to remove the finely divided particles from the solvent, which otherwise may mislead the student into believing that the discoloration is caused by dyes.

Our next reagent consists of a solution of about one ounce sodium sulphide in a pint of water. Sodium sulphide is an inexpensive chemical and is used principally to detect the presence of lead or copper in pigments. Such pigments as the White Leads, Flake White, Cremnitz White, the Chrome Yellows, Naples Yellows, Red Lead, Orange Mineral, Chrome Greens (containing Chrome Yellows), Verdigris, Malachite Green, Emerald Green, or any other pigments containing lead or copper, are rapidly turned black when a drop of sodium sulphide solution is applied to them. For instance, if any Cadmium Yellow becomes blackened by sodium sulphide, we immediately suspect adulteration with Chrome Yellows, as the Cadmiums, when pure, should not become blackened. Cadmium Orange and Cadmium Red may show adulteration with Red Lead or Chrome Orange if blackened; when pure neither is discolored by this reagent. Yellow Ochre should remain unaltered, likewise the genuine Vermilions, if pure, are not blackened by sodium sulphide. Any of the green pigments turning black with this reagent would indicate either Chrome Yellows or Copper Greens to be present. Any color becoming discolored brown or black with sodium sulphide should not be used by the Artist desiring complete stability or durability. The reaction which takes place with this reagent shows exactly what will occur if a painting be hung where sulphurous gases come in contact with the unprotected pigment. Many Artists argue that in their experience the Chrome Yellows, Flake Whites or White Leads have not shown discoloration for a number of years and would no doubt continue to remain unchanged. This may be true in the case of the White Leads, but only under one condition, and that is, that the pigment be properly protected from impure air by an application of varnish or other means. White Leads are perfectly permanent to light and very desirable if properly used. On the other hand, this can not be said of the Chrome Yellows, as we will learn when speaking

later of these pigments. The same is also true of the Chrome Greens (not to be confused with the Oxide of Chromium Greens, such as Emerald Green or Viridian, which are extremely stable pigments), Verdigris, Malachite Green, etc.

A bottle of any acid, such as hydrochloric acid, which I usually prefer, or sulphuric acid or nitric acid, is useful in testing certain colors. Cobalt Blue, Cerulean Blue, Emerald Green, Viridian, Permalba, Vermilions, Prussian Blue, Cobalt Violets, all Blacks (except Ivory Black, which is partly soluble in acid), are indifferent to dilute acids and any change taking place would indicate the pigment to be impure or adulterated.

A solution of a base, such as caustic lye or ammonia water, serves to determine purity and adulteration of pigments, which should remain unaffected by these alkalis.

The pigment of which the Artist uses a larger amount than of any other, is *White*. The three principal Whites are the *Lead Whites* (*Flake and Cremnitz*), *Zinc White* and *Permalba*.

The *Lead Whites* (basic lead carbonates) were employed by the Egyptians. There is and always has been, much controversy on the use of these pigments in the Fine Arts.

We only too often wrongly accuse Lead Whites of being undesirable pigments. It must be said in their favor that when used properly the Lead Whites are very durable and permanent pigments. The sensitiveness of the Lead Whites toward sulphur compounds and gases (which tend to convert the lead to black lead sulphide) makes the proper use of these Whites very important. Unfortunately the opacity of the Lead Whites has done much to make these pigments almost too popular. The Artist using Flake, Cremnitz or White Lead for underpainting, could not get a more desirable pigment for this purpose, as here the color is properly protected from impure air contaminated with sulphurous gases. But where these pigments are used and left exposed, it is only a matter of time, depending on how impure the atmosphere in which the painting is placed, before discoloration occurs. An application of varnish will retard this reaction considerably. White Leads also tend to reduce most organic pigments in mixtures and should not be employed together with impure Cadmium Yellows, Vermilions, Ultramarines, etc. The tinting value of the White Leads does not approach that of Zinc Whites or Permalba. White Lead is a cumulative poison. A simple test for White Lead is the black discoloration when treated with sodium sulphide. In most acids White Lead dissolves with strong effervescence. When strongly heated, it turns from yellow to red. In these three latter respects it differs from Zinc White, which dissolves without effervescence in acid and upon heating turns yellow; but upon cooling, again turns white. Nitric acid or acetic acid entirely dissolves White Lead; any insoluble residue would indicate admixture with such materials as clay, barytes, silica, etc. Caustic lyes also dissolve White Leads.



White Leads in oil dry well, yielding an elastic and tough film. Owing to their sensitiveness to impure air White Leads are not practically adaptable to other painting techniques.

A very popular pigment is found in *Zinc White*, the use of which as a pigment dates from the latter part of the eighteenth century. Zinc White is the oxide of the metal zinc and like many other pigments was too severely criticized during the years following its introduction. The impure condition of these Zinc Whites did much to destroy the confidence which should be placed in this desirable pigment when pure. Today the American Zinc Whites can not be excelled for their dependable purity and consequent stability as a pigment. Pure Zinc Whites are very permanent under all ordinary conditions of painting. When ground in oil, they dry more slowly than the Lead Whites and yield a much harder film. In fact, painting Zinc Whites too impasto is to be advised against, the application tending to become horny and friable upon aging. The tinting power of Zinc White is very high. Sodium sulphide solution does not discolor this pigment.

The most important *Red Pigments* are the *Alizarin Madder* and *Genuine Madder Lakes*, *Genuine Vermilions*, *Red Ochres* and *Red Iron Oxides*.

The *Alizarin Madder* as well as the genuine *Madder Lakes* derive their color from Alizarin, which today is prepared from anthracene, a derivative of coal-tar. The ancients obtained this product as an extract from the root of the madder plant, in which it is usually associated with the less permanent and more purple in hue *Purpurin*. The synthetic product is produced today, so that a very pure and dependable pigment is obtained, equal, and in some instances better, than the natural color extract. The *Alizarin Madders* or modifications of these colors appear commercially as *Alizarin Crimson*, *Alizarin Madder*, *Rose Madders*, *Madder Lakes*, *Pink Madder*, *Brown Madder*, etc.

The *Alizarin Madders* are insoluble in water or alcohol, which distinguishes them from most of the ordinary organic dyestuffs, which impart color to these liquids. The *Alizarin Madders* are best used as overglaze colors and mixture with *Chrome Yellows*, *Lead Whites*, *Flake White*, *Yellow Ochre* and *Raw Earth Colors* is best regarded as being of uncertain stability. Mixtures with durable pigments such as the *Cadmiums*, *Permalba*, *Burnt Ochres*, *Red Oxides*, *Emeraude Green*, *Cobalt Blue*, *Ultramarine*, all *Blacks*, etc., show high stability.

The *Genuine Vermilions* are compounds of the elements sulphur and mercury (quick-silver), and were known and used 400 B. C. by the Egyptians and the Chinese. Pliny, A. D. 77, refers to them as *minium*, a name now given to *Red Lead*. In more modern times the *Vermilions* are often very impure, sometimes containing an excess of sulphur, etc., and these impurities are principally responsible for the bad reputation the *Vermilions* have. When the *Vermilions* are pure, no discoloration should take

place in mixture with pure *Flake Whites*. They are very durable in mixtures with other stable pigments and are not affected by impure air, sulphurous gases or sodium sulphide. A black discoloration upon treating *Vermilions* with the sodium sulphide solution would indicate admixture with *Red Lead* or *Chrome Red* or *Orange*. Alcohol, water, weak acids or alkalies should not react with genuine *Vermilions*. When strongly heated, *Vermilions* sublime, leaving but a trace of residue. A large amount of residue would indicate adulteration with red lead, clay, barytes, etc.

For some inexplicable reason some varieties of *Vermilions* darken somewhat on long exposure to direct sunlight. Especially is this evident with impure *Vermilions*. *Vermilions*, when overpainted with *Alizarin Madder*, have shown greater permanence under prolonged exposure to direct sunlight than when used alone.

The *Red Iron Oxides* and *Red Ochres*, such as *Indian Red*, *Venetian Red*, *Light Red*, etc., receive their color from the oxides of iron, principally *ferric oxide*. The natural and artificial ochres are practically alike in properties, resisting dilute acids and alkalies and showing no discoloration with sodium sulphide solution. These pigments were used in all techniques, from early times.

Most of the modern exceedingly brilliant *Red Lakes* appearing under many fanciful names, although of considerable value for commercial work, are not desirable for absolute permanency. The Artist had better acquaint himself with the durability of the pigment in question, from the manufacturer of the respective color when desiring to use such as the *Geranium Lakes*, *Scarlet Lakes*, *Brilliant Lakes*, etc.

*Carmine* need not be discussed as it should not be employed, except for limited durability, as in commercial work.

The most important *yellow pigments* are the *Cadmium Yellows*, which are all compounds of the elements, cadmium and sulphur. When pure, these yellows, ranging from a pale yellow to deep orange, are permanent to light, not affected by sulphurous gases or compounds and are durable in mixtures with other dependable pigments. An exception to this, however, is found with *Emerald Green* and *Cadmium Yellow* in mixture. These two colors are not compatible and should never be used together. *Chrome Yellows* frequently are used to adulterate *Cadmium Yellows*. Such adulteration is readily detected by treating the color with sodium sulphide, when, if *Chrome Yellows* are present, the sample will turn brown or black. Pure *Cadmium Yellows* are not discolored by this reagent. In concentrated hydrochloric acid the *Cadmium Yellows* should be entirely soluble, leaving no residue.

*Chrome Yellows* ranging in color from a pale yellow to deep orange are essentially compounds of lead chromate and, like all pigments containing lead, they are very sensitive to sulphurous gases and compounds. Not only are the *Chrome Yellows* black-



ened by sulphur, but under exposure to direct sunlight they invariably turn brownish; especially is this evident when the pigment is not chemically pure. Chrome Yellows are likewise not compatible in mixtures with most organic and lake colors. There are many Artists using Chrome Yellows who should first apply some of the simple tests for durability before placing undue reliance in their permanency.

*Indian Yellow* is a transparent color of good permanence and stability in mixture with most durable pigments.

There are several *Yellow Lake* pigments, the coloring principal of which is derived from coal-tar, which are being accepted in place of the genuine Indian Yellow. These colors are also very permanent and especially useful as overglazing colors.

The *Lemon Yellows* (*Barytes Yellow*, *Strontian Yellow*, and *Zinc Yellow*) are very useful, and when pure have proven to possess considerable permanence.

Of the *green pigments*, the *Transparent Oxide of Chromium*, also known as *Emeraude Green* and *Viridian*, is unquestionably the most desirable, for it possesses complete stability in all techniques and remains durable together with other pigments in mixtures. Adulterations are readily detected, as the pigment should remain unaffected upon treating with acids, or alkalies, or sodium sulphide. Any discoloration would indicate admixtures. Water or alcohol will extract any dyestuffs. Of equal durability is the *Opaque Oxide of Chromium*, which, although it has identical chemical properties with the transparent variety, does not possess the strength of color, being a mat, dull green.

*Emerald Green* is a pigment which is practically permanent to light, but, being sensitive to sulphurous gases and compounds, must be properly protected from these to insure stability. With most durable pigments Emerald Green is stable in mixtures, the principal exception being with the Cadmium Yellows. When Emerald Green is used, it is advisable to use the pigment alone, as in mixtures it has but little tinting strength and any danger of incompatibility is then removed. The pigments which, like Emerald Green, contain copper, are, however, best avoided by the Artist. To this group belong such colors as *Malachite Green*, *Verdigris*, and the blue copper pigments. They are sensitive to sulphur and unstable in mixtures with other pigments.

Another set of very durable green pigments are the *Cobalt Greens*. They are of weak tinting strength, but are exceedingly permanent to light and air and with other colors in mixtures. Sodium sulphide solution does not blacken these greens.

The *green lake* pigments do not form an important group, most of these being successfully employed only for commercial purposes. Usually the Artist may prepare his own greens on the palette, using Cobalt Blue, Ultramarine or Prussian Blue with the Cadmiums, etc.

The principal *blue pigments* are *Cobalt Blue*, *Ul-*

*tramarines* and *Prussian Blue*. All of these colors are very permanent to light, insoluble in water or alcohol (detection of dyes) and durable in mixtures with other stable pigments. *Cobalt* distinguishes itself from the other two in being insoluble in acids and alkalies. *Ultramarines* (*New Blue*, *Permanent Blue*, *French Blue*), are destroyed by acids. *Prussian Blue* resists dilute acids but is discolored by lyes, for this reason can not be used as a Fresco color. Sodium sulphide will not blacken these blues, discoloration would indicate adulteration with copper blues.

The *Cobalt Violets* possess the strongest color of the durable violet-hue pigments. They are perfectly permanent to light, being also indifferent towards acids, alkalies and sodium sulphide. These properties readily distinguish it from the very fugitive aniline lake, *Mauve*. *Mauve* and *Magenta* are very strong colors but much too fugitive for Artists' use. Violets and purples may be easily mixed on the palette, using Cobalt or Ultramarine with Alizarin Madder.

The *natural* and *artificial ochres* and *umbers* are the most desirable *brown pigments*. *Yellow Ochre*, *Roman Ochre*, *Transparent Golden Ochre*, *Raw Sienna*, and *Raw Umber* are natural earth pigments deriving their color from oxides and hydrates of iron. The artificial ochres are called *Mars Yellow*, *Mars Orange*, *Mars Red*, etc. Both the native and artificial products are very durable in all techniques and may be successfully used in mixtures with other stable pigments. Mixtures of lake colors and organic pigments with the raw earth colors are best regarded as being of questionable stability. When these raw earths are calcined, they take on a decided red hue and are then dependable in mixture with all other pigments, being equally permanent to light and air, as the raw earths. They resist alkalies and are only slowly acted upon by strong acids. Raw Sienna and Yellow Ochre are sometimes toned with Chrome Yellow, which may be detected if the pigment is blackened by sodium sulphide solution.

*Bitumen* or *Asphaltum* should not be used by the Artist desiring permanency. The colors are of organic origin, composed of a variety of pitchy, tarry substances which partly decompose under exposure to direct sunlight. As oil colors, they are exceedingly slow dryers, and even after years they soften and "bleed" or diffuse through overlying layers of paint. Heavy applications readily cause cracking. *Vandyke Brown*, also being partly composed of bituminous matter, is unsafe for durability, fading to a cold grey tone under exposure to direct sunlight and should be replaced by Burnt Umber with Ivory Black.

All the *black pigments* (*Lamp Black*, *Blue Black*, and *Ivory Black*) are very permanent and durable colors, resisting both acids and alkalies. With all other pigments they are safe in admixtures. With the exception of Ivory Black, they are all principally composed of carbon. *Ivory Black* contains a varying percentage of bone ash; in consequence it is



partly soluble in acids, but is a better dryer in oil than the Lamp Blacks.

Oils, Varnishes, Siccatis and Mediums.

I have found many Artists who were exceedingly conscientious in their selection of durable pigments, displaying a complete lack of technical knowledge of the vehicles they employ. The vehicles and mediums used in the various techniques are just as essential to permanency and durability as are the pigments.

Let us first consider the importance of the proper oils used in Oil Painting. For the Artist, oils may be generally divided into three principal groups:

1. *Drying Oils*: such as Linseed and Poppy Oil.
2. *Semi- or Slow-drying Oils*: such as Sesame, Cottonseed Oil.
3. *Non-drying Oils*: such as Olive Oil, Castor Oil, Coconut Oil.

The oils obtained from the animal kingdom are not practically adaptable for use in the Fine Arts.

Few of the volatile mineral oils, the lighter fractions of petroleum, such as Benzine, Naphtha, Gasoline, Petroleum ether, and sometimes Coal Oil may be used, but then only when their use is thoroughly understood. They find wider application as solvents for resins, as do also the lighter fractions of coal-tar, such as benzol, coal-tar naphtha, toluol, xylol, etc.

We must leave the discussion of oils, varnishes, etc., for a later time, as this subject is as comprehensive as the matter on pigments and must be taken up in detail as it is of much importance. We will therefore now mention only the most interesting facts.

The two principal drying oils, we have said, were *Linseed Oil* and *Poppy Oil*. By *drying* we mean that those oils absorb oxygen from the air, thereby becoming converted into a solid, tough, elastic, transparent mass. This form of drying may be contrasted to the manner in which such substances as turpentine and the lighter fraction of the mineral oils dry. These latter dry by evaporation. This may be readily illustrated by placing a small quantity of linseed oil in an open container and an equal amount of turpentine in another open container. After several days it will be noticed upon weighing each container that that which contains the linseed oil will have increased in weight about 10 per cent., whereas that which contained the turpentine will be practically empty. Again, upon closely examining the oil, we will find the mass to have dried with a considerably wrinkled surface (usually to be seen also on old cans of heavy paint which have stood open for a long time).

The oils belonging to the semi- and non-drying group, distinguish themselves from the drying oils in that they do not absorb oxygen from the air in such a degree as the drying oils and during their drying become partly rancid and do not yield tough, elastic, durable, transparent films, as do the drying oils. Linseed and Poppy Oils have been in use for several centuries and have proven conclusively their

importance as painting oils and the Artist who, without further inquiry, makes use of the non-drying oils such as olive oil, castor oil, coconut oil, etc., is doing himself and his work a great injustice.

*Linseed Oil* and *Poppy Oil* differ somewhat in the time required to dry, Poppy Oil drying somewhat more slowly. Raw Linseed Oil contains a natural coloring matter which is somewhat objectionable to Artists, especially for delicate tints and for whites. These colors, when ground in Poppy Oil, do not show this yellow cast. When Linseed Oil is exposed to direct sunlight this coloring matter is bleached, but returns when the oil is again placed in the dark. Commercially, Linseed Oil is bleached by different methods and must be thoroughly washed free from the acid, etc., used in this process, in order to be desirable for Artists' use. I wish to warn the Artist particularly against the use of anything but the purest Linseed Oil or Poppy Oil, which have proven their merits so successfully in past years.

*Turpentine*, which is obtained by redistillation of exudations of various pine trees, is a very thin, volatile, colorless liquid used generally in conjunction with oils or as a solvent for resins. It is one of the most useful vehicles in oil painting.

The early painters had already discovered that by boiling linseed oil together with finely divided lead or lead compounds, a product was obtained which dried more quickly than the raw oil. Today many such compounds are made, some using lead, manganese, and in late years cobalt compounds, to produce *Siccatis* which are very quick drying compounds. The use and abuse of *Siccatis* requires lengthy explanation and cannot be discussed at this time. I do, however, wish to warn the Artist against their use, except for commercial work where durability and permanence are of secondary importance. It will usually be found that the speed with which a paint film is forced to dry by their use consistently detracts from the durability of the painting, not to mention the possible development of cracks and the rapid darkening ensuing from excessive use.

There are three resins which find widest application in the Fine Arts, they are *Mastic*, *Damar*, and *Copal*. The *Mastic* resin is soluble in turpentine, as is also the *Damar*. The *Copals* distinguish themselves from these in being practically insoluble in most ordinary solvents, requiring special treatment to yield varnishes of the highest durability. The usual method employed in preparing Copal Varnishes consists in heating the resin together with linseed oil and turpentine and frequently the addition of drying compounds gives quicker drying Copal Varnishes. Copal Varnishes yield upon drying the most durable protective films, but on account of the manner in which they resist all ordinary solvents, they are very tedious for the restorer to remove after aging, thereby endangering the underlying painting. *Mastic Varnish* can readily be removed from aged paintings with ordinary solvents, such as turpentines, etc., as can also *Damar Varnish*, and should for this reason not be employed together with the painting oils while painting.



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





42<sup>ND</sup> STREET

Courtesy of George C. Miller, Lithographic Printer

COLORED LITHOGRAPHIC RENDERING BY JOHN RICHARD ROWE

Drawn on 3 zinc line plates—size 12½" x 18

Forty-Second Street, New York





*Courtesy of George C. Miller, Lithographic Printer*

COLORED LITHOGRAPHIC RENDERING BY BIRCH BURDETTE LONG

*Drawn on 3 zinc line plates—size 6½" x 9½"*

*Tower of Hotel Shelton, New York*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





PENCIL RENDERING BY OTTO R. EGGERS  
SMALL HOME DESIGNED TO COST \$16,000



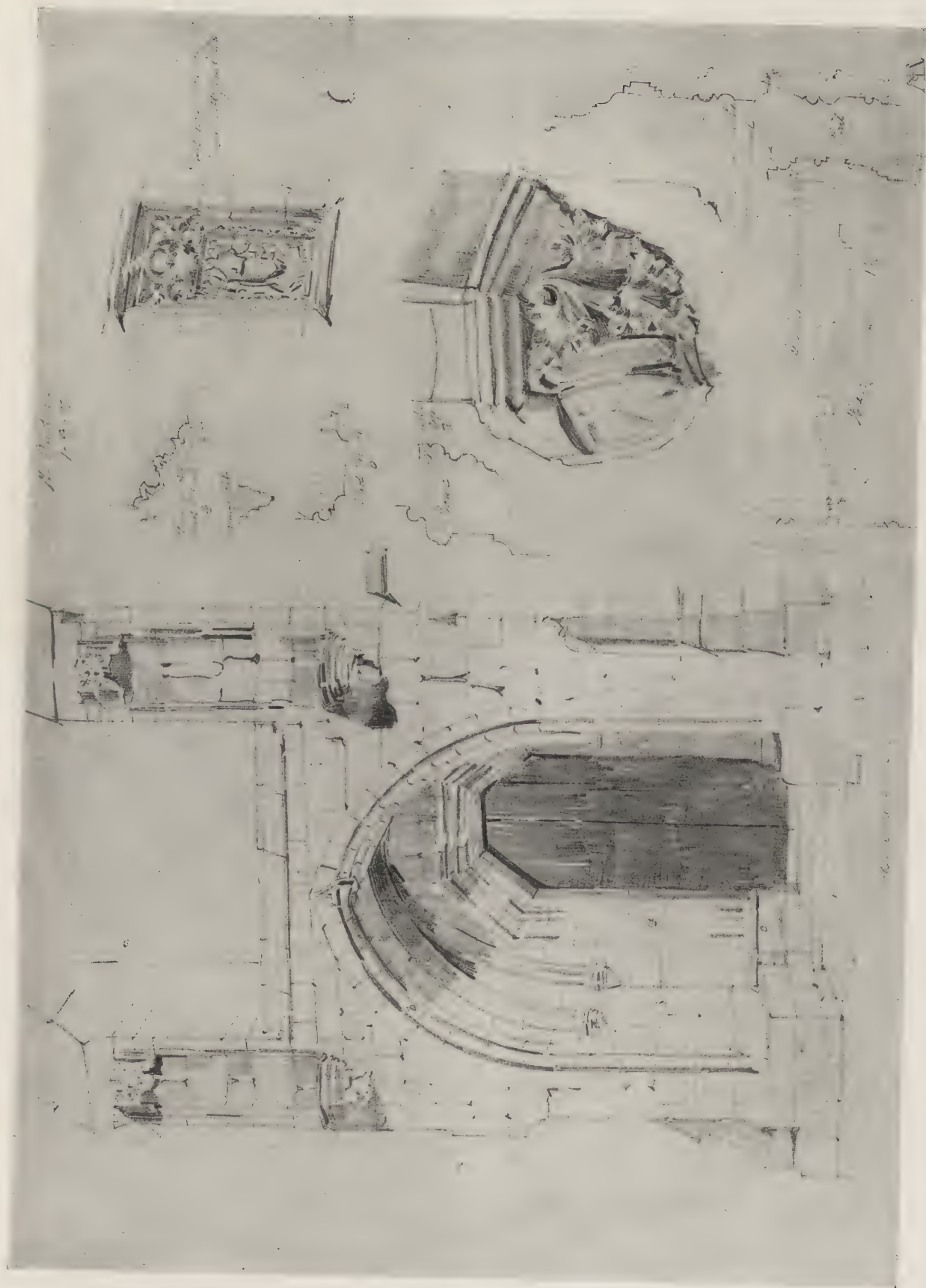
PLATE XII

VOLUME VII

NUMBER 4

*This plate, which furnishes a particularly charming sample of Otto R. Eggers' intimate style of pencil rendering, shows a design for a small home to cost about \$16,000. The design was made by Mr. Eggers for "McCall's Magazine," and was included in their series of "Small Houses Designed by America's Foremost Architects."*





PENCIL NOTES BY T. MACLAREN  
PORCH, COLLEGIATE CHURCH, ST. ANDREWS.



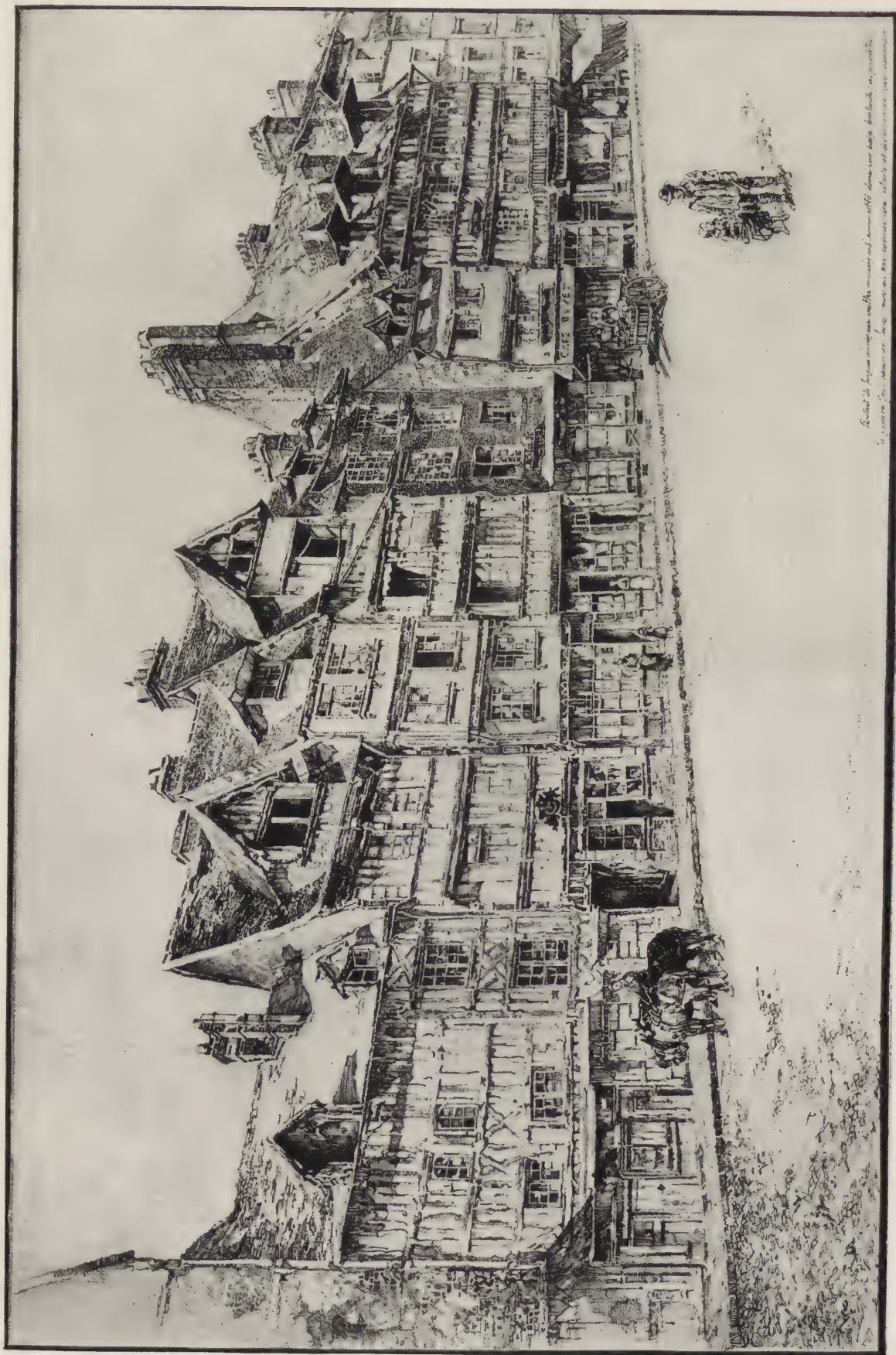
PLATE XIII

VOLUME VII

NUMBER 4

*This plate is reproduced from a drawing by T. MacLaren, Pugin Medalist and Traveling Student of the Royal Institute of British Architects. The drawing is an excellent example of the type of architectural notes which can be taken to advantage by the traveling student.*





ETCHING BY JOHN TAYLOR ARMS

"LACE"



PLATE XIV

VOLUME VII

NUMBER 4

*The subject of the etching reproduced on the other side of this sheet is a famous row of old houses in the "Place Victor Hugo" in Lisieux, a little town in Normandie known for the picturesqueness of its old streets and houses of the sixteenth and seventeenth centuries. Mr. Arms made a drawing of this subject and later etched the plate from which we have made our reproduction. The title was suggested by the texture of the old house fronts which, with the variety of their materials and the delicacy of their details, suggested a bit of the lace which is made in such quantities in the neighborhood.*



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APRIL, 1926

### MR. GILBERT IS GUEST OF THE CONSTRUCTION CLUB

AT THE MONTHLY MEETING AND DINNER of the Construction Club of New York, held on February 24th, Mr. Cass Gilbert was the guest of honor and the principal speaker.

Mr. Gilbert, having in mind the many perplexing problems facing the members of the Club in connection with their daily activities, very wisely and very generously decided to depart from the customary type of after dinner address and to give in an informal and off-hand way the result of his many years of observation and experience as applied especially to those fundamental principles which are so essential to success, and which, in the rush and pressure of modern business, are frequently lost sight of or ignored.

To the members of the Construction Club, architects, specification writers, engineers, builders, and the sales engineers of manufacturing concerns, all having much to do with the business side of the production of buildings, Mr. Gilbert pointed out that the business questions arising in such numbers are complicated with ethical questions more than is the case with many businesses because architecture is fundamentally a fine art and its practice is a profession. He pointed out that the Golden Rule is after all the ethical rule, but that it is sometimes difficult to know just what you would have the other fellow do unto you, especially when there are three or four "others" with conflicting self interests involved. So the application of this most excellent rule frequently requires patience and sometimes the apparent neglect of self interest.

Since justice is what should be sought in the making of agreements and the adjustment of differences, he urged that all those having to do with the business side of architecture make every effort to be just to all parties concerned. It is sometimes hard for a man to be just in his own cause, but the world esteems a man when it is found that he is just at all times whether the cause be his own or that of others. The world looks for useful men and crowns them with success, but the world does not respect a useful man unless he also be a just man.

With respect to competition, which is always keen, Mr. Gilbert reminded his hearers that the man who makes the best goods and deals honorably can laugh at the world, and he added that if he also has the good sense to keep out of debt he has a mortgage on the world and can collect at will.

He reminded us of a man, an iron worker, who sells his product purely on merit, his price is the highest, the quality of his work as well as his name are known from coast to coast and he is always busy.

Mr. Gilbert advised members of the Club to stand squarely on their own feet, asking no favors of any man but thinking out and working out their own problems, either personal or business to a successful conclusion. He observed that the casual man has no success, that luck plays a small part in the careers of most men. Depend upon yourself, do not trust to luck or to anyone else if you would be really successful and achieve a substantial position in your chosen field, whatever it may be.

Mr. Gilbert recounted his meeting with the famous Dr. Bastinaelli and related anecdotes from the life of James J. Hill and Thomas Lowry, the great railroad builders, to illustrate this part of his address. He also quoted the well-known saying credited to Benjamin Franklin to the effect that "Competition is the life of trade." He expressed the conviction that Franklin did not have in mind the narrow limitations of competition in price.

His observations and his remarks on advertising and salesmanship showed a keen insight into present day problems and he advised his hearers to stick pretty closely to the time honored principles, considered by some old fashioned, rather than be led astray by some of the more dazzling but less sound practices and methods which have been developed in recent years.

Altogether Mr. Gilbert gave a most stimulating and valuable address which was greatly enjoyed by all those present.

At the conclusion of the address a rising vote of thanks was extended to Mr. Gilbert.

Just a few words about the Construction Club of New York may not be amiss at this time, since the proceedings of the Club have never been published and but little is known about it outside of New York City.

The Club was started during the winter of 1922-1923 by four men who saw the value of creating a group which would embrace in its membership architects, engineers, general contractors, sub-contractors and manufacturers of building materials, which would meet occasionally to talk over the many problems common to all. The Club is unique in that it has no dues, no by-laws and no officers, and is operated by a committee of five elected annually by the members. At each meeting one of the members is designated by the Committee to preside and is known as the Constitution, with full authority to run that particular meeting to suit himself. Meetings are held monthly with the exception of the three summer months. Interesting programs are arranged for each meeting and discussions follow the regular program. Reports of the doings of the Construction Club will hereafter appear in PENCIL POINTS.

### NEEL REID

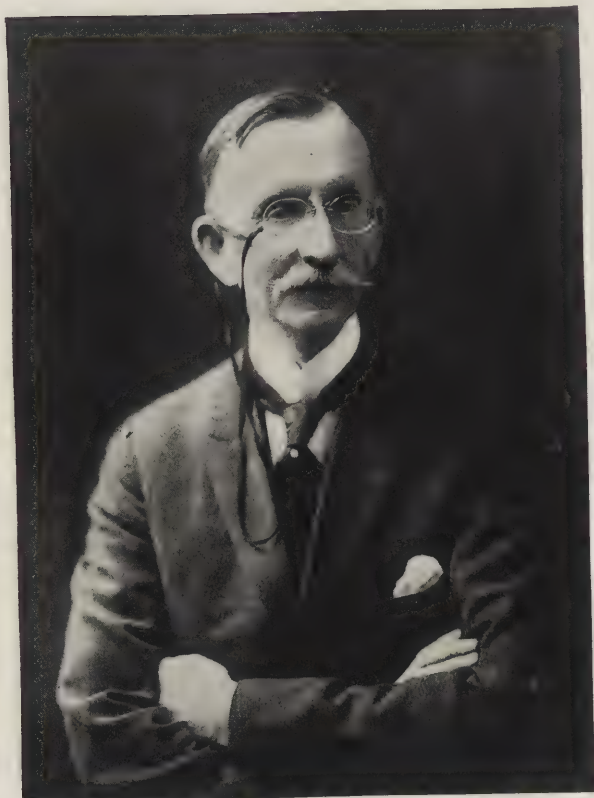
THE DEATH OF NEEL REID at Roswell, Georgia, on February 14th in his forty second year, was a distinct loss to the architectural profession not only of the South, but of the entire country.

Mr. Reid was born in Jacksonville, Alabama, attended the public schools and began his architectural training in a small office in Macon, Georgia. After a brief period in Macon, he entered the office of Willis F. Denny of Atlanta, Georgia, where he remained for several years. This was followed by a two year special course in Architecture at Columbia University and a brief engagement in the office of Murphy and Dana in New York City. Later he went to Europe, making an extended tour of Italy, France and England, sketching and studying. On his return from Europe he formed a partnership with Hal F. Hentz of Atlanta under the firm name of Hentz and Reid, later becoming associated with George F. Normann under the firm name of Normann, Hentz and Reid. After Mr. Normann's death the firm again became Hentz and Reid and later Rudolph I. Adler was admitted to the firm which has remained Hentz, Reid and Adler up to the present time.

Mr. Reid, as a member of these firms, designed many buildings, among which were the Howard Theatre, Rich Building, Peachtree Station, Hillyer Trust Building and many residences in Atlanta as well as buildings in many other parts of the South.

Mr. Reid was a man of exceptional talent, a most lovable character, and an unfailing source of inspiration to all who came in contact with him. Above all, he was a gentleman.





ALFRED DWIGHT FOSTER HAMLIN

ALFRED DWIGHT FOSTER HAMLIN, professor in the School of Architecture at Columbia University for twenty-two years, was killed in New York on March 21, 1926, by an automobile.

Professor Alfred Dwight Foster Hamlin, a born idealist, came of Puritan stock, and inherited that nobility of soul and courage which carried his father's crusade for Christian enlightenment to victory in the Near East. In that atmosphere he was born with the ideals which ruled his life, given as it was to the cause of helping others to see truth and beauty.

He prepared for his life work at Amherst, then at the School of Architecture of the Massachusetts Institute of Technology, and at the Ecole des Beaux-Arts, Paris, and later made extensive studies of the principal monuments of architecture in Christian lands.

He was accomplished as a linguist in both classical and modern languages, and his mother tongue, English, flowed in pure, beautiful volume. His writings clearly expressed his ideas in a forceful, convincing, and scholarly style.

His books on the "History of Architecture" and "History of Ornament" set a new standard of correct teaching in these subjects and his numerous essays and lectures are profound in illuminating the humanism of our inherited record of the building art.

To the School of Architecture and to the realization of his ideals of scholarship and professional attainment he gave his whole busy life.

A real architect in knowledge and feeling, his teaching was valuable to the student both in its sound instruction and cultural import.

In his teaching record of forty-three years at the University, Professor Hamlin was an indefatigable worker for the School, the success of which was his one ambition, but he always laid down his pen when a student came to him, for it was his pleasure to help the inquiring mind along the right road.

He was lovable, and beloved of his students and co-workers, with whom he worked in sweet accord.

Courageous in the right he was a fierce fighter against wrong, accepting no compromise in principles. To him the way of truth was normal, verity was always expected; his cleanly soul abhorred deception, and he could not abide any one so base as to cheat.

Professor Hamlin received the degree of M. A. from Amherst in 1885, and the degree of L. H. D. from St. John's College, in 1912. He was a Fellow of the American Institute of Architects, a member of the Archaeological Institute of America, of the City Plan Committee of the Merchants' Association, and of the Century Club. He was Chairman of the Art Committee to raise funds for the Cathedral of St. John the Divine.

Professor Hamlin became a member of the Broadway Tabernacle Church in 1882, and ever since then this church has been his chief interest outside of the University. There, for over twenty years, he conducted an adult Bible Class. At the time of his death he was a Senior Deacon. He had served on many important committees, and his advice was largely sought by the pastor, Dr. Charles E. Jefferson.

His interest in the Near East, especially in Armenia and Greece, continued throughout his entire life. In 1919 he made an extended tour of the Near East as a Special Commissioner of the Greek Relief Committee, for which he was decorated by the Greek Government.

Surely he digged not in the earth to hide the talent given him! He has gone to show his good work to his Master and to receive his just reward. His Master will say—"Welcome, good and faithful servant. Enter thou into the joy of thy Lord."—*Wm. A. Boring.*

#### SAN FRANCISCO ARCHITECTURAL CLUB

THE OLD CLUB QUARTERS at 77 O'Farrell St., which served us well since 1915, have at last been abandoned, due to the expired lease, unfavorable locality and inadequate accommodations. The S. F. A. C. has now realized the fulfillment of its hope and desires since its organization—a club building entirely to ourselves!

An old three story brick building has been leased and altered to the best of our financial means. Our new home is nearing its completion and we will be proud of it. Many hearty and sincere thanks to our kind donors!

Located at 523 Pine Street, it is just around the corner from Chinatown and yet near the heart of the financial district and the architectural offices. Here a new foundation will be laid for a stronger organization. It is our aim to continue the club's activity and to set a standard for the future generation of young members of our profession.

A brief outline of the convenience of our new Home is as follows:

The lounge room and offices are featured on the first floor. Its cozy atmosphere will make it a pleasure for the members to meet both socially and professionally. For a noon hour recreation, a billiard table is at the disposal of those members who take pleasure in the game.

The second floor area is devoted to the atelier with an adjoining library. One of the original features of the atelier is that its bare walls are to be characteristically adorned by the members and students.

The club has been exceedingly fortunate in procuring the services of Mr. Edward L. Fricke and Mr. Ernest E. Weihe as patrons. Both were students abroad, having received the benefits of the Beaux Arts, and are untiring in their efforts to advance and perfect the atelier.

A huge skylight throws a friendly tint over the quietude of the adjoining library where the members will find peace in their research work.

Accommodations have been made for students that are joining us each month. Massier Anderson and Sous Massier Blas are carrying out their duties. Twenty new members were initiated at our last meeting and we are anxious to have others join with us in the spirit of our happy surroundings.

The Banquet Room, Stage and Kitchen are well laid out in the basement, where our monthly meetings, exhibitions, jinks and other activities will take place. The Entertainment Committee promises a large and enjoyable program for its members.

We will announce our formal Grand Opening very soon and are proud to extend an invitation to all those who are interested in our House Warming.

It won't be long now, boys, so be patient!

The officers for the ensuing year are:—Ernest E. Weihe, President; Howard E. Burnett, Vice President; Clyde F. Trudell, Secretary; Ira H. Springer, Treasurer; Directors—Lawrence C. Stier, Harry Langley, and Arthur D. Janssen.

J. H. DEVITT, *Publicity Manager*



## PENCIL POINTS

### DETROIT ARCHITECTURAL BOWLING LEAGUE

IN TWO MORE WEEKS OUR SEASON will be completed and we are having a close race for first place, with the lead changing every week or so. It will be a difficult matter to pick the winner until the last ball is rolled. Any one of the first five teams at the present time has a good chance for the title. Following are the standings of the teams on March 19:

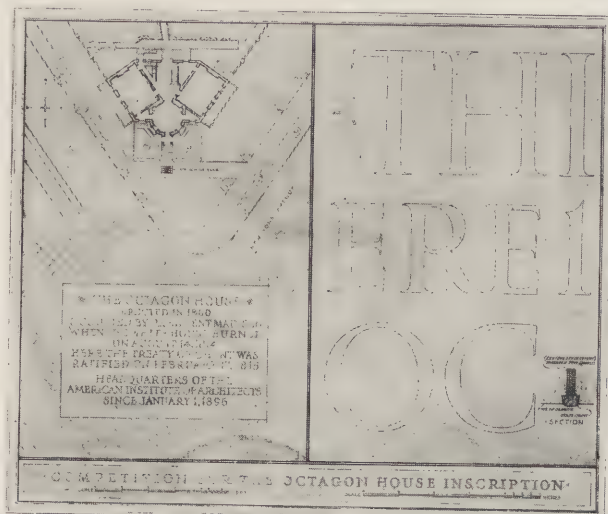
Team	W	L
Albert Kahn .....	47	28
Janke, Venman & Krecke .....	45	30
Smith, Hinchman & Grylls .....	45	30
Donaldson & Meier .....	44	31
Geo. D. Mason & Co. ....	43	32
McGrath, Dohmen & Page .....	39	36
Malcomson & Higginbotham .....	38	37
Weston & Ellington .....	26	49
Van Leyen, Schilling & Keough .....	26	49
Simmers & Waalkes .....	22	53
Individual High Score, 1 game—Kalsched, (A. K.)	267	
Individual High Score, 3 games—Jolson, (A. K.)	649	
Team High Score, 1 game—McGrath, Dohmen & Page	995	
Team High Score, 3 games—McGrath, Dohmen & Page	2796	

In an earlier number of PENCIL POINTS, the New York Amateur Bowling League brazenly boasted of the record-breaking scores they were making this year. In the thriving village of Detroit, these scores caused no little amusement for we had broken their *season scores every night*. A champion does not usually find it necessary to challenge a weaker opponent, but we did give them an excellent chance to demonstrate their championship calibre. So far, we have not had an opportunity of taking them on, but are still patiently waiting.

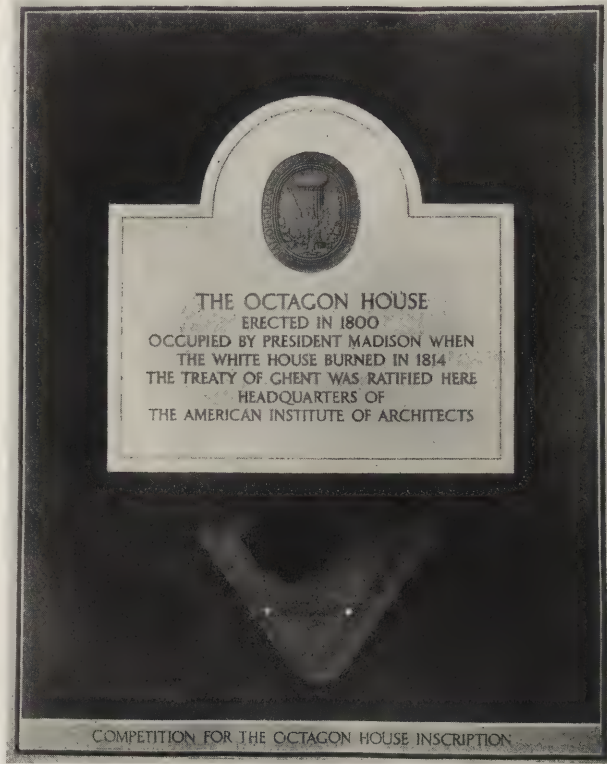
LESTER S. MANNING,  
*Secretary*

### COMPETITION FOR CERTIFICATES

THE NEW YORK BUILDING CONGRESS will award a first prize of \$150 and a second prize of \$50 for an appropriate design for a certificate to be presented in recognition of superior craftsmanship. The Congress desires a suitable form for such certificates which are presented to the outstanding mechanics in each major trade engaged on prominent buildings. The design should be simple and dignified, and express by emblems, human figures, insignia or other device, the purpose of the Congress in the award of such certificates. The Jury of Award consists of Harvey W. Corbett, Chairman; Howard Greenley and Raymond M. Hood. The competition will close on April 15th, 1926. For complete information apply to Wm. O. Ludlow, Chairman, Committee on Recognition of Craftsmanship, New York Building Congress, Room 1016 Grand Central Terminal, New York.



PRIZE-WINNING DESIGN BY AUGUST REULING



DESIGN BY HAROLD A. RICH, AWARDED SECOND PRIZE

### PRIZES AWARDED IN A. I. A. COMPETITION

AUGUST REULING, NEW YORK, was awarded the first prize of \$150 in the competition held by the American Institute of Architects for an Historical Device for the Octagon House at Washington, D. C. Mr. Reuling's design is reproduced on this page. The second prize of \$100 was awarded to Harold A. Rich, Auburndale, Mass., and the third prize of \$50 to J. T. Jacobsen of Philadelphia. Ernst C. Bachschmid, Washington, received a 1st Mention and W. Strudwick Arrasmith, of Louisville, Ky., 2nd Mention. Entries in the competition were sent in from various parts of the country, from Massachusetts to California and from British Columbia to Florida.

### PRINCETON UNIVERSITY SCHOOL OF ARCHITECTURE

TWO COMPETITIVE PRIZES of eight hundred dollars (\$800) each, in the School of Architecture, Princeton University, are announced for the year 1926-1927. The winners are exempt from tuition fees.

The purpose of these prizes is to place at the disposal of experienced draftsmen of unusual ability, who desire to complete their professional training by contact with the academic side of architecture, the advantages found in the School of Architecture, the Department of Art and Archaeology, and the Graduate School, of Princeton University.

The candidates shall be unmarried male citizens, not less than twenty-two nor more than thirty years of age on September 1st, 1926, and shall have been employed as draftsmen in architects' offices for not less than three years.

Applications to compete for the prizes must be filed on or before April 24th, 1926.

For application blanks, and regulations governing the Competition and Award, address The Secretary, The School of Architecture, Princeton University, Princeton, New Jersey.

### LE BRUN SCHOLARSHIP AWARDED

WILLIAM FERRARI has recently been awarded the Le Brun Travelling Scholarship. Mr. Ferrari is twenty-five years old and at present is in the office of James Gamble Rogers in New York.

The report of the Jury, the prize winning drawings and the designs receiving "Mentions" will be published in the May issue.



## PENCIL POINTS

### THE NEW YORK ARCHITECTURAL CLUB, INC.

IN THE MARCH ISSUE OF PENCIL POINTS we described the location of our new club quarters, and also gave a general description of the layout. The alteration work is now rapidly approaching completion, and we have every reason to believe that when this number reaches the subscribers, the club and atelier will be entirely finished, and functioning in full swing.

Speaking of the atelier, which will be known as the New York Architectural Club Atelier, we are now in a position to give out a few details.

To begin with, we maintain, without the slightest fear of successful contradiction, that in the entire history of the Beaux-Arts Atelier system since it was first established in this country by the late Mr. Donn Barber, about a quarter of a century ago, there never was an atelier that started out with such bright prospects as ours. That is not merely an empty boast, as we will try to prove it presently.

The club is most fortunate indeed, in having already attracted the attention of, and in winning the hearty approval and cordial co-operation of some of the highest lights in the architectural profession. So generous was the response to our call, that we are forming what might aptly be called a *Super Board of Patrons* for the atelier, composed of Mr. Cass Gilbert, Mr. Whitney Warren, Mr. John Russell Pope, Mr. Raymond Hood, Mr. Henry Hornbostel, and Mr. A. D. Seymour. All names that stand out and above the architectural profession, like so many mountain peaks. Knowing the great demand on the time of these gentlemen, it would be most unreasonable to expect them to give a great deal of continuous attention to the atelier, but all have promised to make periodical criticisms of the work being done by the men, to act as judges, and to give us talks or lectures on various phases of the architectural profession at certain times, all of which will be prized highly by the men, since it comes from such good authority.

As Active Patrons of the atelier we will have Mr. A. D. Seymour and Mr. Perry Coke Smith, with Mr. E. L. Babitsky as Assistant Patron. These gentlemen of proven exceptional ability will actively criticise, and also carry out the suggestions of the Board of Patrons.

Independent of the Beaux-Arts Atelier, we will have a class in drawing from life, and if sufficient interest is shown, classes also in etching, color rendering, and pen rendering, also any other art activity that may be in demand.

We understand from the "Old Timers," all of whom are greatly enthusiastic over our atelier, that in their days most of the ateliers were in cold, dingy garrets or lofts, and even in ex-stables, poorly lighted and always uncomfortably cold. Here we are providing every student with comfortable working quarters steam heated and well illuminated, so he can give his entire attention to his work. We repeat that we make no idle boast, when we say that no atelier has ever started with equally favorable prospects, and we therefore expect to have some outstanding work accomplished by our boys.

The atelier committee, with the approval of the club's Board of Directors, has fixed the atelier dues at \$60.00 per year, independent of the club membership dues, of which every atelier man must be a member. The atelier dues are payable quarterly in advance. The atelier committee is composed mostly of men with many years of atelier experience, and to judge from their plans, the Bohemian atmosphere as well as the usual atelier freedom and spirit will not be lacking.

At the present time the club dues are still \$10.00 per year, without initiation fee, and all who have joined are considered charter members. However, it is very likely that on the 1st of July, the beginning of the fiscal year, the dues will advance considerably, and there will also most likely be an initiation fee, as the club membership is now well beyond the 600 mark.

The undersigned will cheerfully furnish any further information on anything in connection with the club or atelier, upon request.

### BOWLING LEAGUE DIVISION

THE ARCHITECTURAL BOWLING LEAGUE has completed the 5 man tournament on March 4th, each team having bowled a total of 38 games, or 2 games with each of the other offices in the league. The Team from the office of Cass Gilbert has won the 5 man tournament again this year, making it two times in succession, with Messers Poll, Darren, Reiss, Zer-

fass and Read on the team. This entitles them to hold the trophy for another year.

The final standing in the 5 man tournament is as follows:

No.	Office	W.	L.
1.	Cass Gilbert .....	35	3
2.	Warren & Wetmore .....	32	6
3.	Donn Barber .....	31	7
4.	Guilbert & Betelle .....	29	9
5.	{ A. C. Bossom .....	27	11
	{ James Gamble Rogers .....	27	11
	{ McKenzie, Voorhees & Gmelin .....	27	11
6.	{ McKim, Mead & White .....	25	13
	{ Starrett & Van Vleck .....	25	13
7.	Peabody, Wilson & Brown .....	19	19
8.	{ J. E. R. Carpenter .....	18	20
	{ Thos. W. Lamb .....	18	20
9.	Andrew J. Thomas .....	17	21
10.	Holmes & Winslow .....	16	22
11.	Schwartz & Gross .....	11	27
12.	Benjamin Wistar Morris .....	10	28
13.	Allen & de Young .....	4	34
14.	Shape, Bready & Peterkin .....	3	25
15.	Schultz & Weaver .....	0	38 (F.)
16.	W. L. Stoddart .....	0	38 (F.)

High team score was rolled by the Cass Gilbert team with 901. Second high team score is 870 for which the Warren & Wetmore and Donn Barber teams are tied, and which will be decided by a series of games to be rolled off for the medals.

Individual high score of 243 was rolled by George James of the Alfred C. Bossom office.

Individual high average of 168 for 38 games was rolled by Paul E. Nielson of the McKenzie, Voorhees & Gmelin office.

The 3 man tournament is now in full swing, and as only one round is played, the bowling season will terminate at about the end of April.

HENRY SASCH, Secretary,  
c/o Donn Barber  
101 Park Ave., New York City.

## PERSONALS

EUGENE G. GROVES, ARCHITECT, has removed his offices to 1982 Broadway, Denver, Colo.

RUSSELL L. MCKOWN has opened an office for the practice of landscape architecture and town planning, at 910 Kahl Building, Davenport, Iowa.

C. L. BERRY, JR., ARCHITECT, has opened an office for the practice of architecture at 88 No. Main St., Salt Lake City, Utah.

EARLE C. STORRS has opened an office for the practice of architecture at 16 Norwich St., Worcester, Mass.

HELEN BAXTER and ELIZABETH COPE AUB are making architectural models at 100 Charles Street, Boston, Mass.

R. F. HENNIG, ARCHITECT, has opened an office for the practice of architecture at 834 Brandeis Theatre Building, Omaha, Nebraska.

CYRUS K. PORTER & SONS, have removed their offices to 1110-1116 Walbridge Building, Buffalo, N. Y.

EUGENE L. PLEITSCH and ROBERT MARR PRICE have severed their connection with Preston J. Bradshaw and established the firm of Pleitsch & Price, Architects, Suite 1594, Arcade Bldg., St. Louis, Mo.

BUTLER & HASNESS, ARCHITECTS, have dissolved partnership. Mr. C. D. Hasness has formed a partnership under the firm name of Hasness and Albright with offices in Harrisburg, Pa.

RUSSELL SEYMOUR, ARCHITECT, formerly of Charleston, W. Va., has removed his offices to Jacksonville, Fla.

A. A. AEGERTER and NORMAN I. BAILEY, formerly associated with the late A. B. Groves, have opened an office for the practice of architecture under the firm name of Aegarter & Bailey, 1904 Railway Exchange Bldg., St. Louis, Mo.

STANLEY WILSON, ARCHITECT, formerly with Starrett & Van Vleck, has opened an office for the practice of architecture at 505 Fifth Avenue, New York.

CARL GEWALT, ARCHITECT, is now with the Houlton Investment Co., First State Bank & Trust Co. Building, Hammond, La.



PENCIL POINTS



*Courtesy of A. & C. Black*

PENCIL DRAWING BY JASPER SALWEY



## AMERICAN ACADEMY IN ROME

FROM LETTERS RECENTLY received by C. Grant La Farge, Secretary of the American Academy in Rome, from Gorham P. Stevens, Director, we quote the following:

"THE REGISTRATION HAS BEEN INCREASED by three during the last month.

	Fellows		Visitors		Visiting Students		Totals
	Men	Women	Men	Women	Men	Women	
C. S.	1	2	6	7	7	32	55
F. A.	13		1		16		30
Totals	16		14		55		85

"The staff in Rome held a number of meetings with the object of working out recommendations for some method of limiting the registration, so that the original purpose of the Academy, namely, to provide a center for research work, may be best fulfilled. The results of the meetings were reported to the Trustees.

"The following gifts have come in:

\$4,000 anonymously for lot No. 5

\$1,000 from Mr. James Hazen Hyde for lot No. 5

\$ 500 from Miss Mary W. White for lot No. 5

\$ 500 from Mr. and Mrs. W. S. Spaulding for lot No. 5

"The above sums, together with those promised, are enough to purchase lot No. 5, and pay the transfer taxes and the lawyer's fee. Mr. Richardson, who is now living in the villa which he recently bought and remodelled, is beginning to think of the planting and fencing of lot No. 5. Landscape Architect Newton, at the suggestion of Mr. Vitale, is working up the scheme under Mr. Richardson's direction. It is indeed fortunate that Mr. Richardson bought lot No. 5 when he did, for about three weeks ago a College for priests wanted to buy the Stolberg villa with the lots on either side of it; the College was willing to pay us well for lot No. 5.

"The Ministry of Fine Arts and the Italo-America Society of Rome have now issued a preliminary list of about 70 Italian villas which are "national monuments" and which may be visited by persons provided with entrance tickets purchased from the Italo-America Society. The scheme promises in time to be a valuable means of studying Italian gardens.

"Mr. Vitale passed through Rome. His time here was limited, but he fortunately managed to see how the collaborative problem was progressing."

"On Tuesday, January 5 the Fellows met to select one of the two collaborative programs submitted to them. They chose for their competition a Monumental Stairway in a Government Building. The building was to be an army, navy or state administrative edifice, the particular designation of the building being left to the individual teams. All three groups of collaborators selected the navy department as best suited to inspire them.

"The personnel of the teams was as follows:

Group I —Arthur Deam, senior architect.

Harry Camden, second year sculptor.

Michael Mueller, first year painter.

Group II —Francis Bradford, senior painter

William Douglas, second year architect.

Walker Hancock, first year sculptor.

Group III—Alvin Meyer, senior sculptor.

A. Clemens Finley, second year painter.

George Fraser, first year architect.

"Mr. W. Symmes Richardson, as Annual Professor in the School of Fine Arts, helped to establish the programs for the competition. He has offered valuable suggestions to each team as their work was submitted to him. Mr. Richardson's criticisms have been very concise but highly pertinent and they have been greatly appreciated by the men. The competition, in collaboration, closes on the 6th of February.

"Two new enrollments have occurred during the month in the Fine Arts School; John L. Evans of Pennsylvania on the Stewardson Architectural Scholarship and Alfred E. Poor, architect, on the Henry G. Woodman Travelling Fellowship. The latter is a comparatively new Fellowship from the University of Pennsylvania."

## PHILADELPHIA ARCHITECTURAL EXHIBITION

THE TWENTY NINTH ANNUAL ARCHITECTURAL EXHIBITION to be held by the Philadelphia Chapter of the A. I. A. and the T Square Club of Philadelphia, in collaboration with the Sculpture Committee of the Art Alliance, will be held in the Galleries of the Art Alliance, 1823 Walnut Street, Philadelphia, from May 8 to May 31 inclusive. The architectural exhibits will consist of drawings, models and photographs of proposed or executed work; of structural, decorative and landscape architecture, academic drawings, sketches and paintings of decorative subjects.

PORTLAND CEMENT ASSOCIATION ANNOUNCE  
FREE COURSE

THE PORTLAND CEMENT ASSOCIATION will conduct a short course in *Design of Concrete Mixtures for Predetermined Strength According to the Abrams Theory*. The course will be given by the Association's engineers at the Engineering Societies Bldg., 33 West 39th St., New York, starting at 8 o'clock on the evenings of April 5, 7, 9, 14 and 16. There is no preliminary examination or entrance fee, but the course is not intended for beginners. A similar course will be conducted at the Drexel Institute, Philadelphia, by the Philadelphia office of the Portland Cement Association on the evenings of April 6, 8, 12, 13 and 15. Also a similar course will be given at Albany, April 20 to 23; Syracuse, April 27 to 30; Rochester, May 4 to 7; and Buffalo, May 11 to 14th. Complete information will be sent upon application to the Portland Cement Association, 347 Madison Avenue, New York.

## AMERICAN GAS ASSOCIATION COMPETITION

THE AMERICAN GAS ASSOCIATION is offering \$2,500 in nine prizes for plans for a six room suburban house. The competition is open to architects, draftsmen and students in architectural schools in the United States and Canada. The competition will close on May 15th, 1926. Information on the uses to which gas service may be applied in the home and the program of the competition will be sent upon application to the architectural adviser, William Adams Delano, care of the American Gas Association, 342 Madison Avenue, New York.

PROFESSOR PHELPS TO CONDUCT  
ARCHITECTS' TOUR

PROFESSOR ALBERT C. PHELPS, of the College of Architecture of Cornell University, will conduct an Architects' Tour during the coming summer. This tour again forms a department of the summer school of the Bureau of University Travel. The main sailing is from New York on June 16 and is due back in New York on September 11. The party will visit England, France, Switzerland, and Italy. Further information may be obtained from Professor Phelps, White Hall, Ithaca, New York.

THE REGULATION OF OUTDOOR ADVERTISING  
BY LAW

By Frank B. Williams

THE MUNICIPAL ART SOCIETY of New York has published a bulletin entitled "The Regulation of Outdoor Advertising by Law," by Frank B. Williams. The subject is very ably handled and the bulletin should be of interest to all those interested in the beauty both of our cities and our country sections, as well as those who are interested in advertising and who desire to keep themselves informed on the legal aspects of the subject. Copies of the bulletin may be secured by addressing the Municipal Art Society, 119 East 19th Street, New York City.

## BOOK OF SMALL HOUSE DESIGNS

The Community Arts Association of Santa Barbara, California, announces the publication of the Second Edition of its "Book of Small House Designs". There are 153 pages of perspectives, plans and details of small houses. The price is \$1.50 per copy. This may be secured direct from the publishers.



PENCIL POINTS



PENCIL DRAWING BY JASPER SALWEY



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

SPRING IS HERE! HOORAY! The well-known sun has gotten the best of the snowdrifts, the song sparrows are flitting about in the underbrush building nests, etc., the sap is running up the trees, the cowslips are slipping all over the pastures, and the park benches are accommodating their usual quota of spring lovers. Ain't it a grand and glorious feeling?

The little prizes for the Competition closing March 15th have been awarded as follows:

- Class 1 E. M. Schiwetz
- Class 2 goes to our old friend Oong Gow
- Class 3 Robert Jones
- Class 4 Eric Fleming

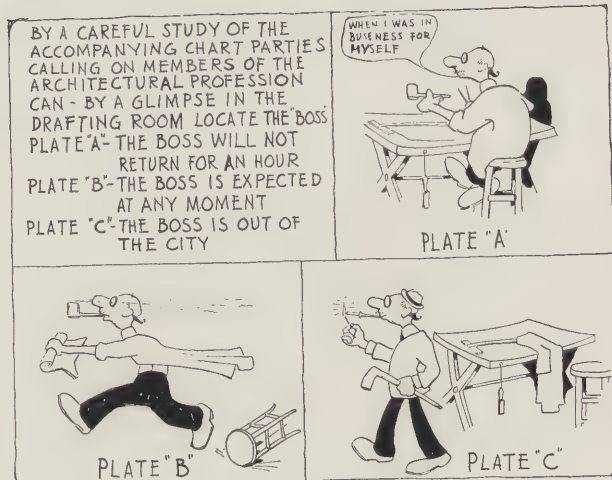
We take this opportunity of acknowledging the large number of contributions submitted this month for which, unfortunately, it was impossible to find space.

FRANK F. FREDERICK, Director of the School of Industrial Arts of Trenton, N. J., passes along this helpful little suggestion. You know sometimes the small things make a big lot of difference:

Is there ever a more trying moment than to finish a charcoal or pencil drawing and find your atomizer gummed up? No wire is handy to clean out the dry fixatif. Nothing to be done but send out for a new one. Take the new one, and, after use, run a pipe cleaner through it to absorb the fixatif and put it away with the cleaner in the small tube. The atomizer will always be in shape for use.



BOOKPLATE BY ERIC FLEMING  
(PRIZE—Class Four—March Competition)



BY J. HENRY BELL

AND HERE IS A NICE LETTER from Brother Goldsmith of the University of Kansas. It makes us blush a little bit to print this letter but it does us a lot of good to know that what we are trying to do around here is meeting with such hearty approval from our readers. We thought when we started the New Year with an edition of 16,000 copies it would be a plenty, but it is not. The subscriptions are coming in so fast that the edition must be increased to 17,000 with the May number.

Editor, Pencil Points,  
New York City, N. Y.

Dear Sir:

About a month ago I wrote you cancelling my subscription to PENCIL POINTS, pleading poverty and the fact that I saw it through the department subscription. Both facts remain as good as ever, but nevertheless I enclose check for five dollars for a three years' subscription. The point is that I want my own copy. Therefore I recently endured a bit of hardship and went without something else, thus saving the five simoleons, thinking that thirty-six successive copies of Pencil Points would amply repay me for what I endured. It was the January copy which decided me.

I might put it this way: "When is a luxury a necessity?" "When it is Pencil points."

Very truly yours,

(signed) Goldwin Goldsmith.

Having received the January issue, don't let me miss the February issue.

## ODE TO MRS. C.

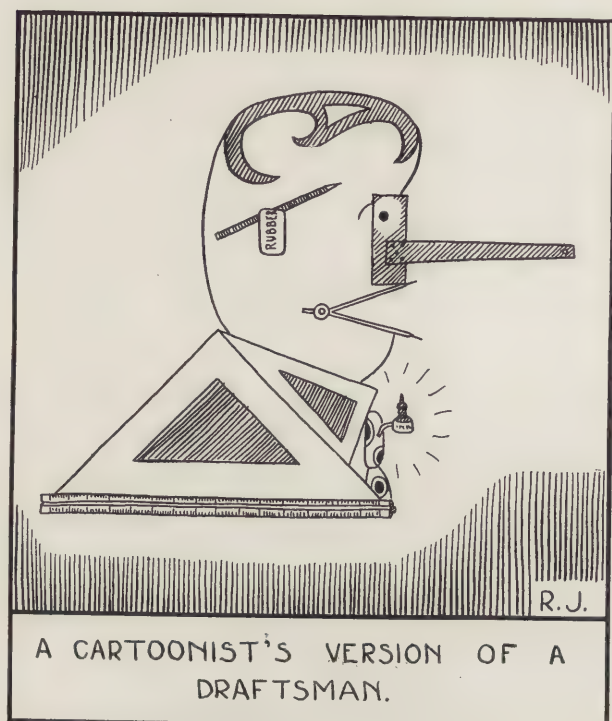
OFFICE TOILER

(PRIZE—Class Two—March Competition)

Oh, where's there a frau more sylph-like than thou?  
And surely you'd stay so in future as now.  
But take heed as I plead and ration your feed  
To meal times, then only, to just what you need.  
Cease nibbling and mungeing continuous snack  
On candy and what-not or suppleness lack.  
To stem the advance of chin numbers and tummie  
And harness your runaway hard earned money.  
Do this or miss far your chart weight at par  
Like those willowy ones in Harper's Bazar.

Oong Gow





A CARTOONIST'S VERSION OF A DRAFTSMAN.

BY ROBERT JONES

(PRIZE—Class Three—March Competition)

### WEARIN' AWA'

She's tougher than leather and harder than nails,  
This little old lady who rapidly fails  
As she cleans up the drawings, takes out the mistakes,  
And removes all the blots that the draftsman makes.

She's out at the elbows, her paint's getting black,  
She's threadbare and shabby and bent in the back.  
The inkstand's her boudoir, the wastecan her tomb;  
Red Ruby—queen of the Drafting Room.

Anonymous

There once was an  
ardent young builder  
Who said he would  
work for a guilder.  
But his wife would  
not stay  
With so silly a jay  
For the thought of her  
loss nearly killed'er.

Robert Mosely Williams

### WHAT PRICE ARCHITECTURE?

Pencil Pointer C. W. Welch of Gulfport, Miss., sent us a clipping of the following advertisement taken from the Daily Herald of that city:

#### WANTED—MISCELLANEOUS

Will give \$10.00 for plans, two-story reinforced Concrete building. 310 West Beach, Biloxi.  
Here is certainly a chance for some enterprising draftsman to get ten dollars for a few weeks work.

### A CORRECTION

One page 130 of our February issue we misspelled the name of E. M. Schiwetz of Dallas, Texas.

### COPIES OF PENCIL POINTS

WANTED AND FOR SALE

Mr. Harold C. Knight, 70 Lowden Ave., West Somerville, Mass., wants a copy of PENCIL POINTS for February 1922.

Mr. Carl Engelkamp, 1813 Garrard St., Covington, Ky. can supply copies of PENCIL POINTS as follows: June 1920, September 1920, November 1920, which he will sell for 50c. each.

Mr. R. W. Fisher, 1406 Baird Ave., Camden, N. J. can supply a copy of PENCIL POINTS for December 1923.

Mr. Paul H. Smith, 24 E. Division St., Chicago, Ill. can supply copies of PENCIL POINTS as follows: 2 copies of September 1920, 1 copy April 1921, 1 copy October 1921, 1 copy November 1922, 1 copy December 1922, 1 copy September 1923, 1 copy July 1924.

Mr. John E. Linnett, 25 Bancroft Road, Wellesley Hills, Mass. is anxious to secure copies of PENCIL POINTS for November 1920 and June 1924.

Mr. R. L. Sanstrom, c/o Berlin & Swern, 19 South La Salle St., Chicago, Ill. is anxious to secure copies of PENCIL POINTS as follows: July, August and October 1920, January, February, March and December 1921, also May 1922.

Mr. J. A. Blumberg, Central Technical College, Brisbane, Queensland, Australia, is anxious to secure copies of PENCIL POINTS for July and August 1920.

Mr. Lambert Bassindale, 321 Capital Bank Bldg., St. Paul, Minn. can supply copies of PENCIL POINTS as follows: October and December 1920, January, February, March, April, May, June 1921, May and June 1923, and May 1924. And he is anxious to secure July, August, September 1920, October, November and December 1921, January, February, March and April 1922.

We will pay twenty-five cents each for copies of the December 1925 issue of PENCIL POINTS delivered in good condition to the PENCIL POINTS PRESS, Inc., 19 East 24th Street, New York City.



BOOKPLATE BY ROY W. PERCIVAL



PENCIL POINTS



PENCIL SKETCH BY H. C. DOUDEN



OLD HOUSES  
CORNWALL  
JASPER  
SALWEY

PENCIL SKETCH BY JASPER SALWEY



SAN XAVIER 1892  
A. D. PICKETT 25

WATER COLOR SKETCH BY A. D. PICKETT



HERE AND THERE AND THIS AND THAT



E. M. SCHIWETZ '24

SCENE ON SAN ANTONIO RIVER  
SAN ANTONIO TEXAS

PENCIL SKETCH BY E. M. SCHIWETZ  
(PRIZE—Class One—March Competition)



# THE SPECIFICATION DESK

A Department for the Specification Writer

## SPECIFICATIONS

By W. W. BEACH

### PAINTING AND GLAZING, PART XVIII

AFTER PUBLICATION OF THE SPECIFICATIONS for Marble, Terrazzo and Tile Work, which appeared in the March issue of PENCIL POINTS, there remain only the Divisions of Painting and Glazing to complete the General Contract for our Consolidated District School Building. These last two Divisions are frequently combined, though they actually have little in common, except the fact that all old-time painters were also glaziers. Not so, to-day.

We combine the three last previous trades on the assumption that men would have to be sent from the nearest large city to do the work. But every town contains men who do painting and others who supply and set glass, hence different governing conditions are to be assumed for these latter trades.

As was intimated when discussing Plastering, the architect is more dependent upon the character of his painter for the production of a good job than he is upon his specifications. Once upon a time, it was customary for architects generally to eschew all mention of ready-mixed paints, unless to forbid their being brought upon the job. The painter was compelled to obtain the raw materials and mix them on the job—though it is doubtful if the superintendent spent a great deal of time watching him do it. There was also a question as to whether or not mixing by hand evolved a usable material equal to the machine-mixed product of responsible manufacturers.

At all events, it is evident that the one-time prejudice of architects against ready-mixed paints has more or less evaporated and we are sensibly guided to a large extent by the advice of painters who know their business and whom we wish to hold responsible for the work done. Some of these still mix their own and others favor the wares of some particular maker.

And what the architect wants is a good job, regardless of the material used. With a dependable contractor, that is what he'll get, barring accidents. With the other kind, Heaven help the poor superintendent. No one can foretell what he will get, until he has had the work done over a few times. His specifications will help him, 'tis true, but they cannot be counted upon to keep him out of trouble. Such guaranty has not yet been thought out. The best we can do with the specifications is wide open to criticism. But we will proceed with

#### DIVISION N. PAINTING AND VARNISHING

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of and apply in full force to these Specifications for Painting and Varnishing. The Contractor shall refer thereto as forming integral parts of his Contract.

##### ARTICLE 1. *Work Included.*

(A) THE ITEMS under this Division include:

- (1) PAINTING of all Exterior Wood and Metal Work.
- (2) PAINTING of Certain Interior Wood and Metal Work.
- (3) FILLING AND FINISHING of Wood Floors.
- (4) SHELLACING, VARNISHING AND FINISHING of all other Interior Woodwork.
- (5) ALL BURLAP AND CANVASS Wall Covering.
- (6) PAINTING OF BURLAP, Canvas and Cement Plaster Wainscot and Certain other Plaster Surfaces, as called for.
- (7) WHITE-WASHING WALLS in Boiler Room and Certain Walls in Basement.

(8) SUCH OTHER WORK as is herein specified.

##### ARTICLE 2. *General Description.*

*Note.* Under the headings of this Article, there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Art. 3.

(A) EXTERIOR PAINTING. All exterior wood and metal work shall be painted as specified. Woodwork shall first be primed.

(B) INTERIOR PAINTING. All exposed interior wood and metal work shall be painted, except that specified to be varnished, oiled or shellaced. Backs of all trim shall have one coat of paint. A  $\frac{3}{4}$ " band of black paint shall be accurately and neatly painted on plaster just above all brick wainscot.

(C) GRAINING. Interior surfaces of all sash and metal doors shall be grained as specified in Par. H of Art. 8.

(D) WOOD FLOORS. All oak floors shall be filled and varnished as specified in Par. A of Art. 12, and all maple floors oiled as specified in Par. B of same.

(E) SHELLAC AND VARNISH. All hardwood trim shall be filled, shellaced and varnished as specified in Art. 11.

(F) WALL COVERINGS of canvas or burlap, shall be applied to certain wainscots as called for on drawings and shall be painted as specified in Art. 9.

(G) ALL CEMENT-PLASTERED WAINSCOT and other interior cement-plastered surfaces shall be painted as specified in Art. 9.

(H) WHITE-WASH shall be applied to all unplastered walls, partitions and ceilings in boiler room, fan rooms, engine room and basement air passages.

(I) SIGNS and card and program holders shall be provided as specified in Art. 10.

#### MATERIALS

##### ARTICLE 3. *Purchase and Delivery.*

(A) ALL MATERIALS shall be of quality and make herein-after specified, or equal material approved by the Architect. Unless the Contractor makes written claim as to the unsuitability of any material, it is understood that he agrees to produce first-class work with the materials specified and will have same delivered at the building in ample time and in sufficient quantities so that the work will not be delayed thereby.

(B) ALL DELIVERIES shall be in Makers' original packages, with labels intact and seals unbroken. All seals shall be delivered to the Superintendent. Where specifications are not definite, or materials are submitted for use in place of those specified, they may only be used under previous approval. To this end, the Contractor shall submit the names and brands of all such materials in writing to the Architect well in advance of time same are to be used.

(C) TESTS. All materials shall conform to the latest requirements of the American Society for Testing Materials and shall be subject to such tests as said society prescribes for each specific material.

##### ARTICLE 4. *Paint, Oil, Etc.*

(A) LINSEED OIL shall be pure, thoroly settled, clear, refined, of approved make, and either raw or boiled, as required. No boiling will be permitted, of the hot raw oil called for.

(B) WHITE LEAD shall be strictly pure carbonate of lead, finely corroded, free from acid, and shall contain 70% to 75% carbonate of lead and 25% to 30% hydroxide.



## PENCIL POINTS

(C) WHITE-WASH shall be an approved mixture of pure, slaked white lime, guaranteed not to rub off, peel, flake or crack. It shall be of sufficient density to insure, in 2 coats, an even uniform bright white color.

(D) SHELLAC shall be best quality orange shellac, cut with denatured alcohol, using not less than 3 lbs of hard gum-shellac to every gallon of alcohol.

(E) TURPENTINE shall be pure spirits, distilled from Southern pine.

(F) VARNISH shall be the best product of an approved Maker and shall be the kind intended by the Maker for the use to which it is put, either interior, exterior spar or floor varnish, as case may be.

(G) PASTE FILLERS shall be finely ground silica in pure linseed oil and japan drier, and shall be of approved make.

(H) LIQUID FILLERS shall be of same make as varnish, containing sufficient stain to produce work corresponding with sample.

(I) PIGMENTS shall be of approved quality and make and of selected color and shade.

(J) DRYER shall be a pure oil product, free from gum, rosin or petroleum derivatives.

(K) READY-MIXED PAINTS may be used where lead and oil are specified for wood or metal, provided the approval of the Architect to both make and brand are secured well in advance of the time same are needed.

(L) COLORS AND SAMPLES. Colors will be determined by the Architect and samples of all work shall be submitted to him for approval well in advance of time for beginning work.

(M) PUTTY shall be composed of 3 parts pure whiting to 1 part white lead and sufficient linseed oil and japan dryer to produce working consistency and proper drying qualities. Putty shall be colored where necessary, to match stain.

(N) SANDPAPER shall be No. 00. Fine steel wool may be used in place of same.

(O) OTHER MATERIALS shall be the best of their respective kinds, all in strict accordance with the specifications and with approved samples. Benzine or gasoline may be used in small quantities for cleaning only.

### ARTICLE 5. *Wall Covering.*

(A) BURLAP shall be best quality wall material, free from projecting lumps, threads and prominent ridges, thoroly shrunk and filled with oil filler to overcome all tendency to soften under paste, pull in hanging or swell in joints.

(B) CANVAS shall be best quality, medium-weight wall material, prepared as specified for burlap.

(C) GLUE SIZING AND PASTE shall be of approved quality and guaranteed strength and permanency.

## WORKMANSHIP

### ARTICLE 6. *Preliminary.*

(A) INSPECTION. The Contractor shall inspect all work to be painted, varnished or oiled and shall call attention of Superintendent to all surfaces not in fit condition for covering, and to any other condition liable to adversely affect the quality of workmanship, and shall not proceed until all such defects have been corrected. Failure on the part of the Contractor to make such inspection and report, or the covering of defective work by the Contractor will, in either event, render him liable to re-execute, at his own expense, finished work affected thereby, at the option of the Architect. The Contractor shall give the Superintendent due notice and ample opportunity to inspect each coat of paint or varnish and shall not proceed with any coat until the last preceding is approved.

(B) ALL SURFACES to be painted or varnished shall be free from machine, tool or sandpaper marks, dust, insects, grease or any other thing liable to impair the finished work. No finish or paint may be applied to such surfaces nor to wet, frozen or rusty materials.

(C) ALL WOOD FINISH shall be carefully hand-smoothed and sandpapered. All knots and sap shall receive two coats of shellac before first coat of paint or filler is applied. All exterior woodwork shall be primed as soon as possible after delivery at the building. Knots shall be "killed" with lime where necessary. All rough places shall be sandpapered smooth before application of next coat.

(D) CASTINGS shall be cleaned with wire brushes, smoothed with emery and have all imperfections treated before application of first coat of paint.

(E) PLASTER shall be bone-dry and all patching and replacing complete before first coat of paint or size is applied. All walls shall be inspected and all "hot-spots" properly treated before first coat of paint is applied.

(F) SHEET METAL AND STEEL WORK will have first coats of paint applied before delivery at building. This Painter shall lightly sandpaper and dust off same before applying the additional coats herein specified.

(G) PUTTY shall be applied to all nail-holes, cracks and similar minor defects after application of primer or first coat of varnish. Putty shall be carefully applied to finish flush and be as nearly invisible as possible. It shall not be used to hide serious defects.

### ARTICLE 7. *Wall Coverings.*

(A) SIZING. All walls for which burlap or canvas covering is specified shall first be thoroly glue-sized to cover all surfaces.

(B) BURLAP shall be applied in best manner to all wainscots where called for, extending from top of base to height indicated, in each case. It shall be hung in vertical strips (wall-paper style) wherever height is greater than width of burlap. It shall be well pasted on back and special care used to make close, neat joints with woodwork, where moldings are not provided. Where same are provided, this Contractor shall have them removed and neatly replaced, ready for final nailing by Carpenters. All edges of burlap shall be well pasted and all butt-joints fitted close and properly rolled down. Immediately after each stretch is finished, it shall be sponged with clean water to remove all surface paste.

(C) CANVAS shall be applied to certain wainscots, as called for, and in same manner as specified above for burlap, except that joints shall be lapped instead of butted. After glue is dry, each lap shall be cut to a sharp line and the edges removed, so as to leave a perfectly smooth butt-joint, scarcely perceptible.

(D) GUARANTY. The Contractor undertaking this work hereby guarantees all wall covering applied under this contract not to peel, blister nor develop other defects during a period of one year after date of acceptance of the work of this General Contract.

### ARTICLE 8. *Painting Wood and Metal Work.*

(A) MIXING. Except where the use of ready-mixed paint is permitted in writing by the Architect, all paints not otherwise specified shall be thoroly mixed in the following proportions:

(1) IN GENERAL. 100 lbs. white lead, 4 to 5 gals. boiled linseed oil, 1 pint japan or other approved dryer, and approved pigments ground in oil, as directed by the Architect.

(2) FOR PRIMING COAT on woodwork, 2 gals. of boiled linseed oil shall be added to the above quantities.

(3) FOR LAST COAT of all interior painting, 1 gal of turpentine shall be substituted in place of a like quantity of linseed oil in proportions above given.

(4) DRYER in cold or damp weather may exceed, by not more than  $\frac{1}{2}$  pint, the quantity given above.

(B) APPLICATION. Exterior painting shall not proceed in wet or freezing weather, but shall be carried on only under favorable conditions, so as to dry free from dust, insects or other objectionable matter. No coat shall be applied on a surface not thoroly dry. The finished work shall be free from brush-marks, spots, oil-clots, hair and other imperfections.

(C) EXTERIOR METAL WORK (other than wire guards and copper), after being thoroly cleaned with wire brushes and sandpaper, shall have all exposed surfaces (including all sides of metal sash and doors) primed with a good coat of metallic paint, in addition to shop-coat. After priming, two additional coats, of selected colors, shall be applied to all surfaces. Metallic paint of different color from first coat shall be used on all surfaces where color is unimportant.

(D) EXTERIOR WOODWORK. All exterior woodwork, including all window and door frames, shall have a priming coat of lead-and-oil paint as specified in Par. A, above, including all unexposed surfaces, immediately after delivery and before exposure to the weather. All exterior woodwork, including frames and sash, shall be given two good brush coats of paint selected, in addition, to priming coat. Abutting cards of wood finish shall be soaked in oil before erection.



## PENCIL POINTS

(Author's note: The foregoing specification for priming should only be used where trade union rules make it imperative that all first coat work must be done at the building and not at the shop. Like many other such rules, they are not particularly concerned in the good of the work. It is much better that all frames, which are liable to exposure at the building, be primed before leaving the shop. If advisable, they can be inspected there, before priming. This applies also to finished cabinet work, which should not receive more than a final coat at the building, or a good oil rubbing.

(E) DOORS AND SASH shall have all upper and lower edges painted 2 coats. Sash grooves and edges of sash running in same shall be oiled with 2 coats of mutton-tallow or hot raw oil.

(F) INTERIOR METAL WORK, including radiators and exposed piping, but not including other heating, ventilating, plumbing and electric equipment and nickel-plated work, shall, after being cleaned as specified, receive 2 good coats of lead-and-oil paint of selected colors.

(G) INTERIOR WOODWORK shall have a heavy coat of priming paint on all concealed portions, immediately after delivery at the building. All interior woodwork, except where varnish is specified, shall have a priming coat of paint and 2 additional coats of paint of selected color.

(H) GRAINING. All sash, doors, transoms and frames (including those of metal), wherever adjoining finish is to be varnished; also inside of all entrance doors, except to boiler room, shall be painted 2 coats and grained by experts to perfectly match adjoining wood finish. All grained work, after passing inspection, shall receive a finish coat of spar varnish.

### ARTICLE 9. *Painting Walls and Ceilings.*

(A) MIXING of all oil paint for this work shall be done as specified in Par. A of Art. 8.

(B) ALL CEMENT WAINSCOT shall receive 4 coats of lead-and-oil paint, the last coat stippled in approved manner.

(C) ALL BURLAP AND CANVAS surfaces shall be painted 2 good coats of lead-and-oil paint, in approved colors.

(D) ALL OTHER PLASTERED SURFACES specified to be painted shall first be prepared as specified in Par. E of Art. 6, then receive 3 good coats of paint in selected colors, the last coat stippled in approved manner.

(E) WHITE-WASH. All surfaces of walls and ceilings of rooms so specified in Article 2 shall receive 2 good coats of white-wash, or a spray-coat sufficient to thoroly cover all surfaces to density specified in Par. C of Article 4.

(F) PROTECTION. All floors, woodwork, painted work, glass, pipes, valves, engines, furniture and other equipment shall be carefully protected during painting, as this Contractor will be required to thoroly clean all paint spots from such surfaces and make good all damage resulting therefrom.

### ARTICLE 10. *Sign Work.*

(A) ALL LETTERING shall be done by expert sign-painters, using standard approved block characters in black sign-paint, except where red is specified.

(B) EACH HALL-DOOR TRANSOM shall have a number of 3 figures, as directed, 5" high.

(C) EACH EXIT DOOR from assembly hall and balcony shall have the word "EXIT" above in 6" letters, in red sign-paint.

(D) DOORS to assembly hall, stage, gymnasium, principal's office, toilet and locker rooms and to class rooms, the designation of which is indicated on plans, shall have name of room lettered on panel, as directed, in 3" letters.

(E) CARD AND PROGRAM HOLDERS, corresponding to samples in office of Architect, shall be provided for each class room door and for doors to assembly hall, gymnasium and principal's office, attached to door panel or wall, in approved manner, as directed.

### ARTICLE 11. *Varnishing.*

(A) FILLER. All hardwood finish shall be properly filled immediately after delivery, to produce the approved shades: filler to be paste or liquid, as demanded by grain of wood. All filler shall be of uniform shade, smoothly and evenly wiped off to properly bring out the grain. All corners, moldings etc. shall be thoroly cleaned of surplus filler.

(B) SHELLAC. All woodwork specified to be varnished shall receive a good coat of shellac as soon as possible after delivery. Shellac shall be applied to hardwood only after it is filled.

(C) VARNISH. All woodwork specified to be varnished shall, after being shellaced, be given 2 coats of varnish, except that insides of bookcases and supply-cases shall have single coats. Interior varnish shall be used thruout, except on woodwork in bath rooms, locker rooms, toilet rooms, kitchen, cafeteria, clinic and household science rooms, for which spar varnish shall be used. Spar varnish shall also be used for final coat on hand-rails, window stools and other surfaces subject to severe usage. All varnish shall be flowed on smooth and even, thoroly covering all surfaces with each coat. Filler coat and first coat of varnish (except single coat inside of cases) shall be freely sand-papered and dusted off. Last coat shall be left in natural gloss, smoothly flowed on. Stops for windows will not be put on until after varnishing is completed, but shall have finish coat applied after being fitted and before being placed.

### ARTICLE 12. *Floor Finish.*

(A) VARNISH. The wood floors of all rooms where varnish is called for shall be filled and stained to accord with approved samples and finished with 2 thoro brush coats of floor varnish, evenly flowed on.

(B) OIL. All hardwood floors, except those specified to be varnished, shall be given one good coat of pure hot raw linseed oil (heated to about 200° F, but not allowed to boil) immediately after being laid, and well rubbed in with cotton rags. A second coat shall be applied in same manner just before work is accepted.

## DIVISION O. GLASS AND GLAZING

Note. (Same as precedes Art. 1 of Division N. This note is standard for all Divisions of the General Contract.)

### ARTICLE 1. *Work Included.*

(A) THE ITEMS under this Division include glass and glazing of all sash, transoms, ceiling lights, skylights, partition lights and glass panels in doors, cabinets and cases; also other items herein specified.

### ARTICLE 2. *General Description.*

Note. (Same as precedes Art. 2 of Division N. This note is standard for all Divisions of the General Contract.)

(A) PLATE GLASS shall be provided for all glazed doors in each story above basement (except where other glass is particularly called for) and in side-lights of vestibules.

(B) DSA GLASS shall be provided for all exterior sash in building (except where wire-glass is called for); for all transoms and for lights in partitions (except where plate or maze glass is called for) and for glazed doors in basement.

(C) SSA GLASS shall be provided for all glazed doors and panels in cabinets, cases and cupboards, except that panes larger than 4 square ft. shall be DSA.

(D) MAZE GLASS shall be provided for all windows, glazed doors, partition lights and transoms of all toilet, locker, shower and store rooms, clinic, offices and for glazed doors to gymnasium.

(E) MAZE WIRE-GLASS shall be provided for all ceiling lights.

(F) ROUGH WIRE-GLASS shall be provided for all skylights, except that one pane, as directed, in boiler room skylight, shall be of polished wire-glass.

(G) POLISHED WIRE-GLASS shall be provided in outside door to boiler room and in exit doors of assembly hall.

## MATERIALS

### ARTICLE 3. *Glass.*

(A) GRADES. Grading of glass shall be in accordance with standard practice, as interpreted by the Architect. Maker's billing, labeling or box-marking will not be accepted as proof of quality or grade of glass if, in the judgment of the Architect, such glass falls below the standard specifications for the quality called for. All glass shall be first-hand. All shall have smooth edges and shall be free from prominent blemishes.

(B) PLATE GLASS shall be best quality American polished plate of even thickness (not less than 1/4") and free from warp or other defects.



## PENCIL POINTS

(C) DOUBLE-STRENGTH GLASS shall be "A" quality, clear, with good gloss, be well flattened and free from any but the slightest imperfections, such as air bubbles, blisters, burnt specks, burns, cords or strings. Any pane showing any such prominent defects further than  $\frac{1}{2}$ " from any edge will be rejected. DS glass shall not be less than  $\frac{1}{8}$ " thick.

(D) SINGLE-STRENGTH GLASS shall be "A" quality, as specified in preceding paragraphs, and shall not be less than  $\frac{1}{2}$ " thick.

(E) MAZE GLASS shall be the commercial product so termed and shall be uniformly  $\frac{3}{16}$ " thick, unless otherwise called for. Where so required, maze glass shall contain woven-wire mesh, as specified in the following paragraph.

(F) WIRE-GLASS shall be the commercial product so termed, in which a woven-wire mesh is evenly embedded thruout the center of the sheet. Unless otherwise specified, it shall be  $\frac{1}{4}$ " thick, with rough or ribbed surface. If specified to be "smooth" or "polished," it shall be smoothly polished both sides and be free from blemishes as specified for DSA glass. Where called for, wire-glass shall have "maze" surface one side.

### ARTICLE 4. Other Materials.

(A) GLAZIERS' POINTS shall be standard zinc triangles or other approved "points".

(B) CLIPS, as provided by Makers of metal sash, shall be used for glazing all such sash in accordance with their directions.

(C) PUTTY shall be composed of a proper mixture of pure whiting, white lead and linseed oil to produce a working consistency and proper drying qualities. Special approved putty shall be used for metal sash glazing and for winter work.

## WORKMANSHIP

### ARTICLE 5. Glass Setting.

(A) CORRECT MEASUREMENTS for the sizes of all glass shall be taken from sash at the mill in sufficient time so that sash can be glazed immediately after delivery at the building or as soon as required for enclosing same. These actual measurements shall take precedence, in all cases, over dimensions indicated on drawings, except that the Contractor shall call the attention of the Architect to any apparent errors in sash sizes and secure ruling on same before cutting glass for such locations.

(B) GLAZING. This Contractor shall set all glass included in his contract. All shall be bedded in putty and back-puttied

in best manner and secured with glaziers' points or clips, as case may be. Except where wood stops are called for, all glass shall have rabbets well filled with putty, smoothly and evenly finished. All glass in doors, all plate glass and all glass set without sash shall be bedded and back-puttied as above specified and securely fastened with wood stops, supplied with millwork. These shall be carefully removed, and replaced after glass is set, and shall be neatly bradded in place by Glazier, with brads of proper size, not over 12" apart, and not less than 2 brads in each stop. The Glazier shall be responsible for all damage to these wood stops as well as for all glass held by same. The Architect will direct, dependent upon seasonal conditions, (and without affecting the contract price) whether all outside sash shall be glazed complete, ready to be hung, before plastering is begun or after it is finished.

(C) ALL SKYLIGHTS shall be glazed with wire-glass of proper sizes and set in accordance with approved skylight details, either smoothly puttied or secured with spring members, as case may be. First lights over eaves all around shall have lower edges carefully bedded in putty or other approved material. One pane in skylight over boiler room shall be polished and located as directed.

### ARTICLE 6. Inspection, Replacement and Cleaning.

(A) INSPECTION. This Contractor shall carefully inspect all glass before offering same for acceptance and shall leave same whole and complete thruout entire building at time of acceptance of the whole work.

(B) BREAKAGE. All glass supplied by this Contractor that is broken before acceptance of the entire work must be replaced by him without cost to the Owner, regardless of cause or time of damage. The Contractor shall include in his bid an amount which he considers sufficient to cover such contingencies, except that he will not be held responsible for general damage due to explosions, mob action or the like, or for damages in proportions of the building in direct control of the Owner. No claim for other undue breakage will be considered by the Owner, except that the Contractor may collect from others for known damage, without recourse to the Owner.

(C) CLEANING. Upon completion of the work, the Contractor shall have all glass that is included in this contract cleaned and polished by experts. All must be free from paint, varnish and plaster spots, care being taken not to scratch glass or damage woodwork, floors, plastering or other near-by finished work, all of which shall be left in perfect condition, ready for the opening of school.

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**"Allen On Fire Protection".**—Data book on standard practice and notes on underwriters requirements for standpipe systems. Detail drawings and specifications for standpipe and hose units for all classes of structures—office and public buildings, hotels, hospitals, schools, theatres, 4 stories or less or 5 stories or more in height. Data on pressure regulation, diagrams. A.I.A. File No. 29e2. W. D. Allen Mfg. Co., 566 W. Lake Street, Chicago, Ill.

**"Beautifying The Home Grounds".**—336 designs of pergolas, trellises, lattice fences, gates, entrance arches, summer houses, garden furniture, working drawings, photographs and sketches. A valuable addition to the library of every architect. Price twenty-five cents. Southern Pine Association, New Orleans, La.

*Published by the same firm, Southern Yellow Pine Flooring, Technical Bulletin No. 1, containing specification and design information and data for the use of architects and engineers. A.I.A. File No. 19e9.*

**Kitchen Designs.**—Book of model kitchens presenting designs submitted in the Frigidaire Architectural Competition. Invaluable data as to the incorporation of electric refrigeration in residential plans. Delco-Light Co., Dept. C-32, Dayton, Ohio.

**The Little Red Ball.—The Story of Good Wrought Iron.**—An industrial story reprinted from the October "World's Work". Booklet on the subject indicated. 12 pp. 6 x 9. A. M. Byers Co., Pittsburgh, Pa.

**Fireproof Homes of Period Design.**—A most important book of 72 designs selected from drawings submitted in a national competition. The subjects are well presented and in addition to the illustrations much useful information is included which is especially applicable to small and medium size residence construction. The book contains specifications and detail drawings. 112 pp. 8½ x 11. United States Gypsum Co., 205 West Monroe St., Chicago. Price \$1.00 to all except architects writing on their own stationery.

**Hitchings Greenhouses.**—Attractive booklet on the subject of Greenhouses, Conservatories, and data on Cold Frames. Profusely illustrated. Contains plans, layouts, information regarding heating, standard sections and list of books on Greenhouse operation. 59 pp. 8½ x 11. Hitchings & Co., Elizabeth, N. J.

**Exterior Lighting Fixtures.**—Catalog J profusely illustrated, showing full range of exterior lighting fixtures for all requirements. Hundreds of designs. 108 pp. 8½ x 11. Smyser-Royer Co., 1609 Sansom St., Philadelphia, Pa.

**Instant Hot Water For Every Need at Lowest Cost.**—Booklet illustrating and describing Arco tanks for hot water supply. Many attractive color plates, sectional views, typical installations, measurements and data, tables. 24 pp. 8 x 10½. American Radiator Co., 1807 Elmwood Ave., Buffalo, N. Y.



## PENCIL POINTS

**Kliegl Theatrical Decorative Spectacular Lighting.**—Complete manual just off the press. Illustrating and describing complete line of lighting specialties and lighting effects for the stage and for theatres, motion picture studios, window displays, show rooms, exhibitions, pageants, outdoor theatricals outdoor flood-lighting, spectacular advertising, ball rooms, cabarets, schools, lodge rooms and countless other applications. Tables of weights and sizes, price lists. A valuable addition to the architect's library. Write for Catalog M. Kliegl Bros., 321 West 50th Street, New York. 128 pp. 8 x 10 3/4.

**Sanymetal Catalog No. 15.**—Just off the press. Complete textbook with working drawings on metal partitions for toilets, showers, offices, factories, hospitals. Embodies many suggestions and innovations. The Sany-metal Products Co., 1712 Urbana Road, Cleveland, Ohio.

**Flexible Fixture Hangers.**—Folder illustration and describing this type of hanger. Crouse-Hinds Co., Syracuse, N. Y.

*Published by the same firm, Floodlight Projectors, folder illustrating and describing this type of projector.*

**Architectural Detail Plates.**—Plates furnishing valuable suggestions and data which will help the architect to make lighting equipment specifications. Plates 68, 69 and 70, just issued, deal with church, gymnasium and public building lighting respectively. Curtis Lighting, Inc., 1119 W. Jackson Blvd., Chicago, Ill.

*Published by the same firm, Floodlight Projectors, folder illustrating and describing this type of projector.*

**Garage Design Data.**—A service to Architects. Data Sheet No. 40 on the subject of live load ratings for designing multi-floor garage buildings. Preceding sheets sent on request. Ramp Buildings Corporation, 21 East 40th St., New York City.

**Anti-Slip Treads.**—Data sheets with drawings showing application of various types for different uses. American Abrasive Metals Co., 50 Church St., New York City.

**Architectural Monographs on Tiles and Tilework.**—No. 3 contains the Architectural Ceramics of Persia. Ancient, Medieval and Modern, by Rexford Newcomb, Prof. of History of Architecture, University of Illinois. Many interesting illustrations and color plates. 32 pp. 7 1/2 x 11. Associated Tile Mfgs., Beaver Falls, Pa. Price \$1.50.

**Architects' and Engineers' Built-Up Roofing Reference Series.**—Volumes 2 and 3. Volume 2 covers steep roof specifications with blue prints, specification and explanatory text. Volume 3 deals with the subject of Roof Flashing in the same manner. Very valuable documents for the specification writer. Uniform with Volume 1 of this series. 30 pp. 8 1/2 x 11. The Barrett Co., 40 Rector St., New York.

**Brief Wood Finishing Formulas.**—Loose-leaf sheets with index, specifications covering all classes of wood finishing. 64 specifications. 8 1/2 x 11. Berry Bros., Detroit, Mich.

*Published by the same firm Natural Woods and How to Finish Them. Valuable notes covering all varieties of woods and their treatment. 93 pp. Convenient pocket size.*

**Treadlite Tile.**—New series of floor tile pattern sheets showing eleven standard colors, pattern suggestions and notable interiors in which Bonded Floors have been used. Complete set sent to readers of Pencil Points upon request. Bonded Floors Company, 1421 Chestnut St., Philadelphia, Pa.

**The Heart of the Home.**—Catalog No. 31 illustrates and describes complete line of kitchen ranges in all combinations, and other accessories for the modern kitchen, residence, hotel or club. 36 pp. Bramhall, Deane Co., 261 West 36th St., New York.

**Cabot's Insulating Quilt.**—Catalog with detail drawings covering subject of heat insulation in modern buildings. Standard filing size. Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

**Olde Stonesfield Roofs.**—Brochure with color plates illustrating artistic roofs and walks. Eighteen subjects. 5 1/2 x 6 1/2. The John D. Emack Co., 112 South 16th St., Philadelphia, Pa.

**Timber Vault Construction.**—Portfolio describing and illustrating Guastavino masonry construction suitable for churches and other buildings. Full page plates. Data on Akoustolith sound absorbing stone. Covers subject on modern acoustics. 10 x 13. R. Guastavino Co., 1133 Broadway, New York.

**"Ellison" Casement Operator.**—Leaflet describing this product containing illustrations and details showing method of installation and operation. International Casement Co., Jamestown, N. Y.

**Rolling and Folding Doors and Shutters.**—Catalog No. 51. Complete catalog profusely illustrated, covering all types of equipment for various uses. 136 pp. 8 x 11. The Kinnear Mfg. Co., Columbus, Ohio.

**Ball Bearing Door Hangers and Special Hardware.**—Catalog No. 24. This handbook illustrates and describes hardware for all types of sliding and folding doors, overhead carrying devices, expansion bolts, ball bearing wheels, rolling ladders, etc. Fully illustrated, specification data, tables of sizes, fully indexed. 50 pp. 8 1/2 x 11. McCabe Hanger Mfg. Co., 426 West 25th St., New York City.

**Color Harmony in Floors.**—Brochure illustrating in color, reproducing samples of various woods so as to show grain, color and texture. 24 pp. Maple Flooring Mfrs. Assn., Exchange Bldg., Chicago, Ill.

**Studies in Granite.**—Portfolio of 18 drawings of the greatest value to architects and designers, printed on heavy plate paper. National Building Granite Quarries Assn., 31 State St., Boston, Mass.

**Elevator Door Efficiency.**—Illustrated catalog showing various types of elevator doors, detail drawings, specifications, safety appliances, etc. 8 x 10 3/4. The Peelle Co., Stewart Ave. & Harrison Place, Brooklyn, N. Y.

**Special Purpose Hinges.**—Catalog No. 42. Handbook completely covering subject with illustrations, detail drawings, tables of sizes and weights and prices. A.I.A. File No. 27 bl. 8 1/2 x 11. 25 pp. Richards-Wilcox Mfg. Co., Aurora, Ill.

**Samson Spot Sash Cord.**—Attractive 4-page leaflet briefly setting forth merits of Spot Sash Cord and giving Size Numbers with dimensions. Sample of Spot Sash Cord included. Samson Cordage Works, 88 Broad St., Boston, Mass.

**Chains.** Catalog A. 1.—Describing a complete line of sash chains, cable chains and various specialties and fixtures useful in modern building construction. Tables and other useful data. 24 pp. 6 x 9. The Smith & Egge Mfg. Co., Bridgeport, Conn.

**Structural Slate in White or in Color.**—Booklet with color plates describing an entirely new line, Struco Slate. 8 1/2 x 11. The Structural Slate Co., Pen Argyl, Pa.

**Boilers and Tanks.**—Catalog B covers all types of tanks for hot and cold water, pantry sinks and other similar work required in residences, club houses, etc. 36 pp. 6 x 9. John Trageser Steam Copper Works, 445 West 26th St., New York City.

**Wagner Data Book.**—Catalog No. 19. Contains illustrations and descriptions of door hangers and tracks for overhead carried systems, fire door fixtures and hardware specialties. Section and detail drawings and complete data for specifying. 176 pp. 8 x 11. Wagner Mfg. Co., Cedar Falls, Iowa.

**Artist and Drawing Materials Catalog.**—Complete illustrated list of drafting room supplies. Price list attached. 352 pp. 6 x 9. F. Weber Co., Dept. PP., 1220 Buttonwood St., Philadelphia, Pa.

**Whiting's Brushes.**—Catalogs 85 and 86 describing complete line of brushes for varnishing, paper hanging, etc. 4 1/2 x 8. 216 pp. Whiting-Adams Co., Boston, Mass.

**Architectural Designs in Acme Brick.**—A series of 48 photographs showing architectural designs rendered in Acme brick. Illustrations show the various types of buildings erected in the Southwest in recent years. 11" x 8 1/2". Sent free to architects applying on their office stationery. Acme Brick Co., Fort Worth, Texas.

**Ritter Oak Flooring.**—Illustrated brochure giving excellent data on floors of different kinds and of various woods. 31 pp. 5" x 7". W. M. Ritter Lumber Co., Columbus, Ohio.

**Redwood Block Floor.**—Illustrated booklet containing technical information on Rodd Floors of California Redwood Blocks. Also specifications. 4" x 9". The Rodd Company, Century Building, Pittsburgh, Pa.

**School Cafeterias.**—Illustrated booklet showing design and equipment of school cafeterias with photographs of installation and plans for standardized outfits. 9" x 6". Albert Pick & Company, 208 West Randolph St., Chicago, Ill.

*Published by the same firm. Kitchen Equipment.—Photographs and descriptions of Hotel, Club and Hospital Kitchens with treatise on plans and equipment of efficient Kitchens 9" x 6". Electric Kitchen Equipment.—Photographs and descriptions of PIX "Master-Made" ranges, ovens, etc., for Hotels and Restaurants. 8 1/2" x 11 1/2".*

**Simplex Manual Catalog and Reference Book.**—Contains in addition to information regarding Simplex products, tables and data for the ready reference of architects, electrical engineers and contractors. 6 1/4" x 4 1/4". Simplex Wire & Cable Co., 201 Devonshire St., Boston, Mass.

**Western Electric Inter-Phones for Apartment Houses.**—Illustrates and describes use of Inter-Phones in apartment houses. 5 1/4" x 6 3/4". Western Electric Co., 195 Broadway, New York, N. Y.

**McKinney Hinges and Butts.**—General catalog, illustrates and describes complete line of McKinney wrought builders' hardware products, including hinges, butts, door hangers and track, latches, garage hardware and specialties. 6 3/4" x 10". McKinney Mfg. Co., Pittsburgh, Pa.

**Excelso Water Heater.**—Illustrated booklet describing the new Excelso method of generating domestic hot water in connection with heating boilers. (Firepot Coil eliminated.) 12 pp. 3" x 6". Excelso Specialty Works, 119 Clinton St., Buffalo, N. Y.

**The Uses of Mineral Wool in Architecture.**—Describes properties of mineral wool as insulation against heat, frost and sound. Specifications and section drawing for use as a fireproofing. Rules for estimate and cost, 24 pp. 5 1/4" x 6 3/4". United States Mineral Wool Co., 280 Madison Avenue, New York, N. Y.

**"Superior" Kitchen and Cafeteria Equipment.**—Various catalogs, comprising a total of some 400 pages, profusely illustrated with actual plans, installations, appliances, etc., including a brief and interesting treatise on kitchen and cafeteria practice of interest to architects in general. W. F. Dougherty & Sons, Inc., 1009 Arch St., Philadelphia, Pa.

**Hospital Equipment, 16th Edition.**—Complete description of Hospital and Surgical Furniture. Hospital Appliances including Operating Tables, Cabinets, Sterilizers for water, dressing and instruments, also Hydrotherapeutic Apparatus. 232 pp. 7 1/4" x 10 1/2". The Kny-Scheerer Corporation of America, 119 Seventh Avenue, New York, N. Y.

**Hand Wrought Lanterns.**—Illustrated in black and white with price list. Lanterns appropriate for exterior and interior use, designed from old models and meeting the requirements of modern lighting. 20 pp. 5 1/4" x 6 1/4". Arthur Todhunter, 414 Madison Avenue, New York, N. Y.



# PENCIL POINTS

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Number 5

## THE SIXTH MILESTONE

WE HAD THOUGHT to let this Sixth Anniversary of the founding of PENCIL POINTS slide by without saying a word about it, but so much has happened during the past year that we just couldn't let this issue go to press without reviewing some of the more important developments, and somehow or other when you come to review things you are tempted to take a little peek into the future and hazard a guess or two about what is going to happen next.

So here we go. Our group of readers has continued to grow, an edition of 17,000 now being necessary to care for our subscription list and the service copies required by the advertising department. This is all most gratifying to us and constitutes the strongest and most convincing testimony we could ask for that our editorial plans as worked out have met and are meeting the approval of the field we have chosen to serve. We have, during the past year, received hundreds of letters commending our efforts, as well as some of a critical nature, and both kinds are equally welcome. The man who lets us know that he likes what we are doing shows us that in the main we are on the right track. The man who is frank enough and friendly enough to point out our shortcomings as he sees them, adds that little dash of paprika which keeps us from becoming either self-satisfied or sleepy. The last thing we want to do is to reach the state where we think we are so good that we could not be any better. As a matter of fact we have a distinct feeling that nothing we have done to date entitles us to lie back on our oars and "point with pride."

Our color plates are being approved of generally, but we do not feel that this department of our work has by any means reached its full development. Many more beautiful and valuable subjects have been chosen for publication in future issues and, as we go along, we are finding it possible to present our color subjects somewhat more successfully from a manufacturing standpoint. The range of subjects selected for future issues is also such as to broaden and enrich this branch of our work.

Our advertising section has shown a satisfactory growth in volume and, we believe, a decided improvement may be noted in the quality and value of the announcements published in our pages by the various manufacturers who desire to present their sales stories to the readers of PENCIL POINTS. We are constantly endeavoring to work with our advertisers to the end that what we publish for them may be of the greatest practical assistance to those who design buildings, detail their construction

and decide upon their equipment and decoration. It is getting to be more and more recognized that the manufacturer who is both willing and qualified to assist members of the profession in their problems stands the best chance, other things being equal, of having his material favorably considered for a place in the specifications. As we had occasion to say once before, we, as publishers, feel it to be one of our primary functions to act as an intermediary between those who produce all of those things required in making a building on the one hand, and those who put together in their drawings and specifications the various units required in producing and equipping these same buildings. We consider ourselves fortunate in having gained to a considerable degree the confidence of both groups. It is not our intention to publish in PENCIL POINTS any advertising which is not worthy of the full confidence of our readers, and we shall continue to endeavor to make these advertisements, as well as the separate printed matter issued by these firms, of still greater use and value to the profession as time goes on.

We have not published many books of late, but recent additions made to our Editorial Staff will permit us to offer several valuable titles during the coming year. Mr. Harbeson's splendid work, "The Study of Architectural Design," will be published late this Spring.

Selections will be made from the Piranesi plates, especially those devoted to ornament, which are not so well known, and published in the reprint series. A book by Harold D. Eberlein and Leigh French presenting the "Lesser French Palaces," both exteriors and interiors, will soon be in preparation, and other titles will be announced shortly. The PENCIL POINTS' program of presenting important material in book form at a moderate scale of prices has been so well received that both "The PENCIL POINTS Library" and "The Library of Architectural Documents" will be extended still further.

Once more we express both to our readers and to our advertisers our thanks and appreciation for the splendid cooperation they have extended to us in such generous measure. PENCIL POINTS could not have grown as it has without the great and continued interest which both groups have shown in the fundamental idea underlying this publication and in the manner in which so far this idea has been translated into actual deeds. We ask and are counting upon the continued interest and suggestions of all those who want to see PENCIL POINTS an even better journal for the drafting room than it is today.





VILLA FALCONIERI, FRASCATI, WATER COLOR BY JACQUES CARLU





"ROMA," DECORATIVE COMPOSITION, SEE DETAIL PAGE 278

## FRENCH COMRADES IN AMERICA

JACQUES CARLU

*By Edmund S. Campbell*

A FEW YEARS AGO, at a dinner attended by forty-five Chicago architects, all present were former students of Professors L'Etang and Despradelle, the first two Frenchmen to come to this country to teach architecture. In speaking at the dinner the late Louis Sullivan said of Eugene L'Etang, "I learned from him, 'From study comes the light', and I was satisfied to have learned that much in a year."

L'Etang and Despradelle were followed by Paul Cret, Prevot, Alaux, Jean Hebrard, Gabriel Ferrand, Varon, Le Monnier, Mauxion, Grapin, Duquesne, Arnal, Albert Ferran, J. J. Haffner, to mention only the best known who have been teachers in the schools of architecture in the United States. Some of these men came in a professional capacity but remained to teach, others came here primarily as teachers. They have moulded the minds of a large percentage, if not the majority, of our school trained architects. Their influence, perhaps, has been still greater in inspiring so many of our students to cross over to the "left bank of the Seine", to see how much of the fundamental sense of plan, or decoration, and of logic could be absorbed. Our present or perhaps it would be better to say rapidly passing era of good taste may be attributed to a well-known firm of architects;—our

construction may be the result of our own initiative, but the greater part of our continued progress in architecture may be ascribed to the first few Americans who took the path to "L'Ecole" and the Frenchmen who followed them back to train and inspire students of architecture.

The latest French architect and teacher to be attracted to the opportunities in this country is Jacques Carlu, A. D. P. L. G.; Premier Grand Prix de Rome; Director in Architecture of the Fontainebleau School of Fine Arts; Professor of Advanced Design, Massachusetts Institute of Technology.

It is not surprising to those who knew Carlu, even in his teens, that he should have attained great distinction in his profession. They saw in him an enthusiastic student full of ambition, with robust health, willing and able to work and keep up his interest in all the arts and life for twenty four hours a day. It was predicted that great honors were in store for him and so when the Premier Grand Prix in Architecture in France, certainly second only to being elected a Member of The Academy of Immortals, was awarded, the prophecy was fulfilled.

Carlu's early environment was conducive to the encouragement of his artistic genius. He lived from the time he was ten



PROFESSOR JACQUES CARLU





RHEIMS CATHEDRAL AFTER BOMBARDMENT, ETCHING BY JACQUES CARLU



## FRENCH COMRADES IN AMERICA—JACQUES CARLU

years old until he was twenty near Paris in the little historical town of Saint Germain-en-Laye, situated so pleasantly on the heights above the Seine and looking out over the plains to St. Denis and Paris. Between it and Paris on the winding Seine lay those charming places Marly-le-Roi, Malmaisons and Saint Cloud, all haunts and home of numerous unknown and well-known artists. In this neighborhood is situated the Chateau of Francis I in which Louis XIV was born, and which is also the birthplace of the modern musician Debussy. Many artists still live in Saint Germain-en-Laye which is filled with interesting examples of art in various forms. If you have ever walked on the promenade along the river, driven in the Forest of St. Germain, or taken the road to Versailles which lies in back, just over the hills, you would realize that the artistic germ should develop here if anywhere. The world renowned mural painter, Maurice Denis, lived in St. Germain during Carlu's boyhood. Carlu was fortunately his neighbor and frequently watched Denis at his work and heard him discuss his ideas which later appeared in his remarkable book entitled "Theories". Inspired by Denis' example Carlu first planned to be a painter, but finally became imbued with the idea of studying architecture. His early studies were at the Ecole des Beaux-Arts where he was a pupil first in the atelier Dusquesne and Recoura and later in the atelier Laloux.

The competitive opportunities, particularly the Grand Prix de Rome, offered by the Ecole des Beaux-Arts, were naturally of greatest interest to a

person of evident talent, in part because of the standards set for the competitions, and also because of the great opportunity open to the winner to spend three years of work and thought amid the wonderfully inspiring atmosphere of the Villa Medici in Rome. At the same time Carlu realized that there were limits to what the Ecole could offer him and he filled out his education at different opportune times by a broader contact with life, closer acquaintance with artists in all branches of the arts, and by travel in Italy, Greece, and the near Orient, Germany, England and the United States.

Those who study the early record of a young French architect of today must realize how such a record would be affected by the time necessarily spent in military service and in the World War. Carlu served seven years in the army, his military service just preceding the war. He sincerely regrets that those years could not have been used to greater artistic advantage. However, he and all other young contemporary French artists have made this sacrifice and their art as well as ours may ultimately gain.

One of the noteworthy incidents of Carlu's early career was a trip to Rumania, when he was twenty years old. He was employed by a Bucharest architect to do the competition for the "Palais du Senat." Although confident of his ability as a draftsman, he feared that if his true age were known he would not be intrusted with the preparation of this competition on his own responsibility. He therefore gave his age as thirty and only confessed the truth to the



THE ACROPOLIS AT ATHENS, PENCIL SKETCH BY JACQUES CARLU



## PENCIL POINTS

architect who employed him after they had been successful in winning the competition.

His skill as a draftsman at this time was pronounced and recognized and has been further developed and disciplined by the maturity that only age and experience bring. It is truly a compensation to replace the rewards of commerce, to be able at such an age to wander in travels with sketchbook, pencil or brush in hand, to be conscious of the parti of plan, the silhouette of a dome or a minaret, of the color of the stone and of the sky.

Carlu was in the Ecole at the time when the spirit of research through constant study was especially strong. In his early years Janin and Tournon, although not of his atelier, were a strong influence as students, and like Carlu were skilled artists in decoration and painting, as well as architecture. At the same time it must be said that the expression of technique and methods of drawing were over-emphasized, so much so that Despradelle said in 1910, "the school is ever changing and rightly so, today it is a school of illustration."

Carlu was logiste for the Grand Prix in 1913 and finished the year 1913 and part of 1914 in England with City Plan Architect Mawson assisting in work for the cities of Calgary and Ottawa in Canada. In 1914 he found time to win the important Chenavard Competition, at the Ecole, and with the outbreak of the war was with the French Army in Morocco, serving later in the trenches in France. In 1918-19 he was professor in the Bellevue School, organized after the War for the artists in the American Army. 1919 competitions brought him the

Prix Roux at the Ecole and the coveted Premier Grand Prix. After the three unrivalled years at the French Academy in Rome, he received appointment as Director of Architecture at the Fontainebleau School of Fine Arts, the summer school for American artists conducted by the French Government.

In the autumn of 1924 Carlu assumed his present position of professor at the Massachusetts Institute of Technology. During his first year there his qualities were so quickly recognized that he was appointed, together with architect Harry J. Carlson, to study and present designs to the Corporation for the treatment of the Great Court of Honor of the present Technology Buildings in Cambridge, as well as for the schemes for the future growth of the Institute's property recently purchased on the other side of Massachusetts Avenue in Cambridge. These studies are not yet released for publication.

There is no doubt that in time many other commissions for architecture will come his way as they have to our other French comrades in this country. He should also do some mural painting, of whose nature and technique he has perfect understanding.

The choice of material for the illustrations for this article has been limited mostly to scholastic drawings, paintings and studies brought over for a recent exhibition in Boston, and at the Art Institute of Chicago. A few lines regarding Carlu's own philosophy in artistic realms would add to the appreciation of these illustrations. He says, "as to my conception of architecture, I have always asked the past to teach me its lessons, trying always to find the spirit or the essential of what I am studying. Forms, like all other human creations, are perish-



GARDEN PARTY, DECORATIVE COMPOSITION IN TEMPERA COLOR, BY JACQUES CARLU





RHEIMS CATHEDRAL, NORTH DOOR AFTER BOMBARDMENT, ETCHING BY JACQUES CARLU









"VENEZIA," PIAZZETTA AND DUCAL PALACE, BY JACQUES CARLU

*Detail at 1/6 full size*





PLAN OF THE FAMOUS TEMPLE OF JUPITER CAPITOLINUS, BUILT BY TARQUINIUS SUPERBUS

*Size of Original 10' x 10'*

*Restoration by Jacques Carlu*









THE CAPITOLINE HILL, ENSEMBLE FROM THE FORUM, RESTORATION BY JACQUES CARLU



IN THE TEMPLE OF JUPITER CAPITOLINUS, STUDY BY JACQUES CARLU





TEMPLE OF JUPITER CAPITOLINUS, STUDY BY JACQUES CARLU





"ROMA," DETAIL OF WATER COLOR RENDERING, BY JACQUES CARLU

*The entire decorative composition is shown on page 267*





"SONG IN THE WOODS," DECORATIVE COMPOSITION IN TEMPERA COLOR, BY JACQUES CARLU





"VENEZIA," PORTION OF MURAL DECORATION FOR A HOUSE IN DALLAS, TEXAS  
*Painting by Jacques Carlu*



DINING ROOM DECORATED BY JACQUES CARLU, WITH MURAL PAINTING SHOWN ABOVE  
*Early Italian Renaissance Style*



FRENCH COMRADES IN AMERICA—JACQUES CARLU



"FIRENZE," PORTION OF MURAL DECORATION FOR A HOUSE IN DALLAS, TEXAS  
*Painting by Jacques Carlu*



DINING ROOM DECORATED BY JACQUES CARLU, SHOWING PANELS "ROMA" AND "NAPOLI"  
*Early Italian Renaissance Style*





"MERCURY'S FOUNTAIN," DECORATIVE COMPOSITION IN TEMPERA COLOR  
BY JACQUES CARLU



able, but my faith lies in an art which expresses at one and the same time all our dreams, all our desires, and all our knowledge. I believe in the ultimate success of the struggle that the modern world has undertaken toward the conquest of a new mysticism. Art does not lie in one form or another, but in a principle, in an expression of human thought, in logical method; thus there is no reason for maintaining that art which does not conform to a certain standard is not art, and that all other expressions are pure barbarism.

"Each form of art belongs to a definite period. The ideas and expressions of any one period indicate definitely the needs of that period. We cannot escape this conclusion any more than the human being can fail to obey the eternal laws of life. Life is not effort alone; movement and action express man's richest endowment. Dynamic equilibrium is impossible, and no society, no form of art can resist the general stagnation that would result from a cessation of progress. Art should be as alive as we are. The contemporary artist is he who is a bond between yesterday and tomorrow,—who connects the memory of the past with the expectation of the future. If he sometimes appears to be in opposition to his own time it is because he has within himself that which is invisible to the blind multitude, the rhythm of the future. The further he rises above the commonplace the more solitary he finds himself; the more absolute and the more profound is his faith. He is far above all questions of fad, fashion or money."

As to his technique he has written, "For art there is no one technique in the sense generally given to this word for the architect or the draftsman. There are those who are with or without spirit or artistic

feeling or sense of architecture. The true technique for an architect is the intelligent understanding of the program he has to interpret,—the skilled use of his material in an adaptable manner, and a profound understanding of the forms of civilization which characterize the period to which he belongs. First it is necessary to give architecture its rationalism, its sense of volume, its system of geometrical solids dictated by the plan which is the determining factor for which both logic and imagination are the laws. From this solid background the artist's dreams must be developed and expanded in order that the logical and sensitive masses which are expressed by the silhouette and by the light and shadow may have a surface that is vibrant with life, incisive, delicate or rugged, according as the requirements may be constructive or suggestive.

"Evidently the architect should have so perfect a technique as a draftsman that he may express and elaborate his thoughts to the fullest extent. But in my opinion technique should be entirely independent of purpose. Everything lies in the spirit. Pencil, pen, brush,—all means of expression, should lie at the control of the artist. All forms of technique are perfect if they help him to express through some other material the will and emotion which later can be translated into some permanent form."

In a letter regarding this article he has expressed his views so interestingly to those alive to a new awakening in architecture that I quote it here. "My classical culture strongly based on a broad and very careful study not only of the glorious monuments of the past but also of the aesthetic spirit which animated human mind in all plastic expressions of its artistic adventure, far from giving me an unreasonable idolatry for what is gone forever, on



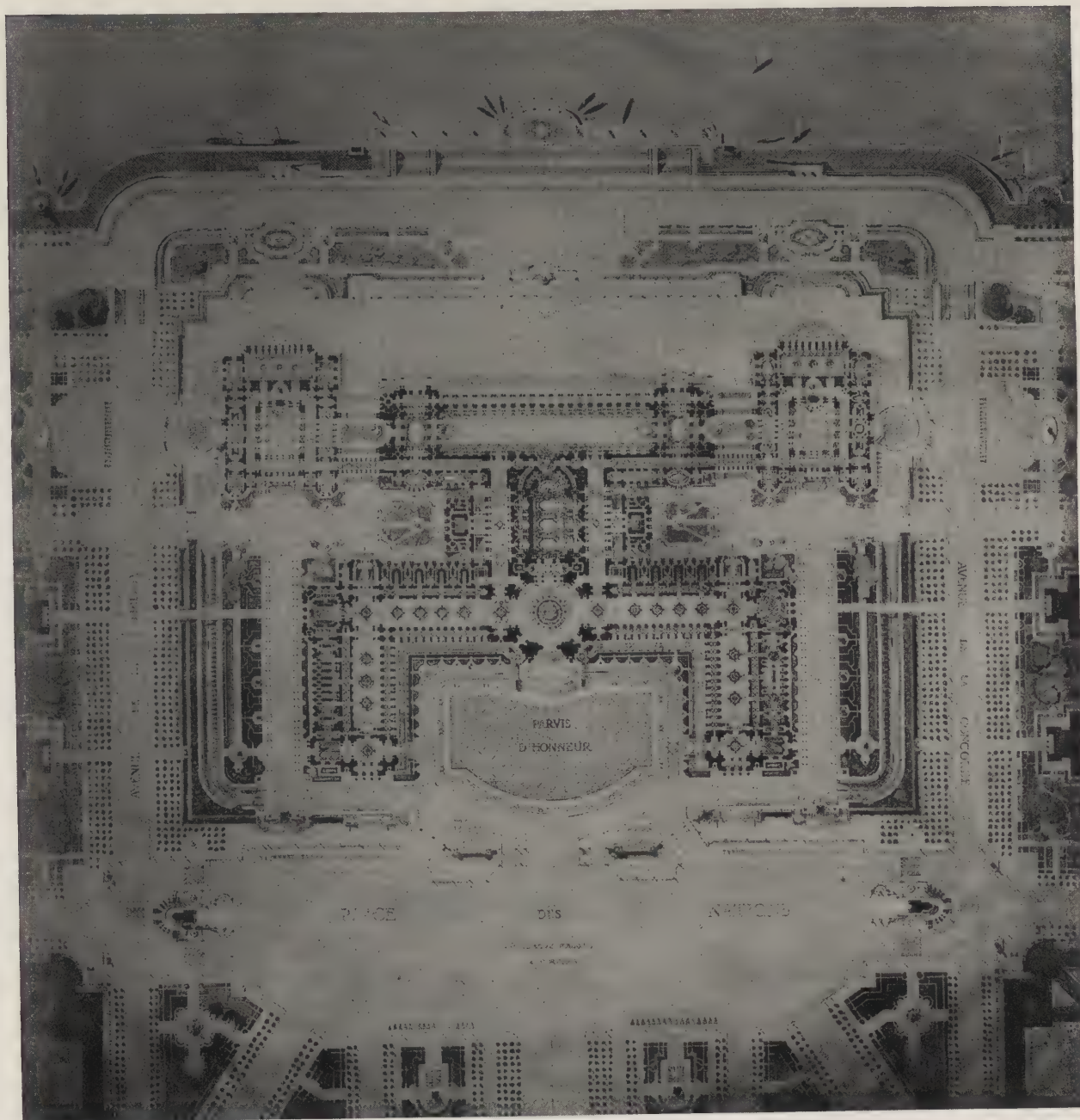
COMMEMORATIVE MONUMENT, LYONS, FRANCE  
WINNING DESIGN IN COMPETITION, BY J. CARLU AND R. GIROUD



# PENCIL POINTS



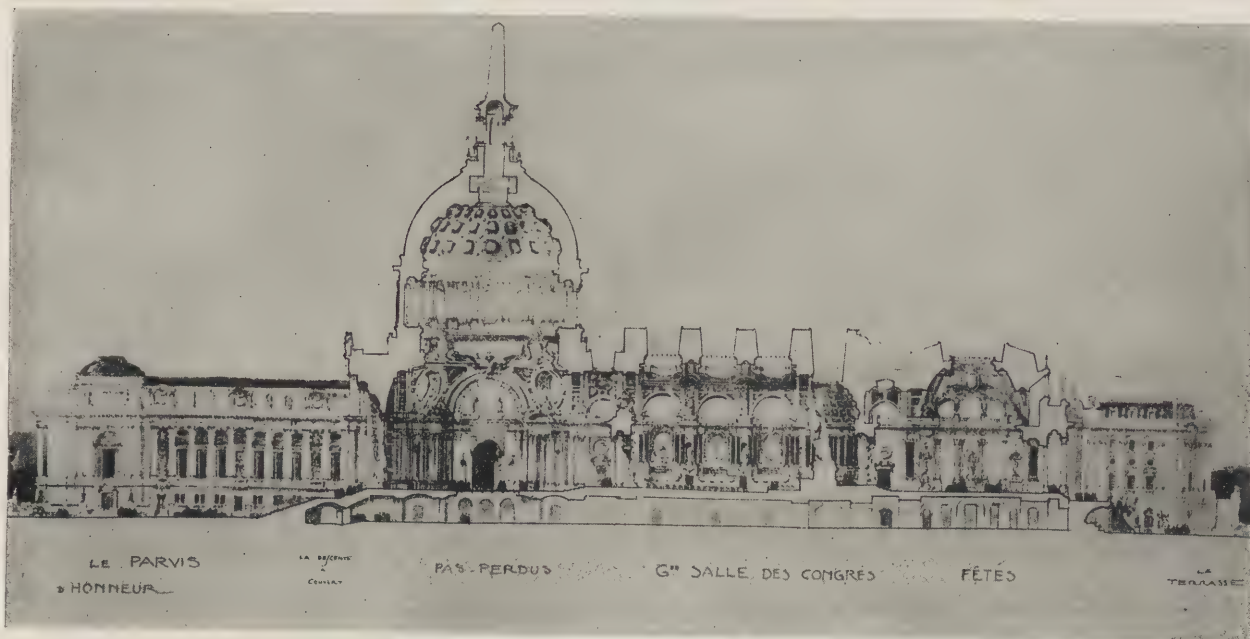
ELEVATION OF 1919 GRAND PRIX PROJET, BY JACQUES CARLU



WINNING DESIGN FOR PALACE OF THE LEAGUE OF NATIONS, FROM 1919 GRAND PRIX COMPETITION  
PLAN BY JACQUES CARLU, ÉLÈVE DE MM. LALOUX, DUQUESNE, ET RECOURA



FRENCH COMRADES IN AMERICA—JACQUES CARLU



FRAGMENT OF SECTION, 1919 GRAND PRIX PROJET, BY JACQUES CARLU



DETAIL OF ELEVATION, DESIGN FOR PALACE OF THE LEAGUE OF NATIONS  
1919 GRAND PRIX PROJET BY JACQUES CARLU, ÉLÈVE DE MM. LALOUX, DUQUESNE, ET RECOURA





FRAGMENT OF 1913 GRAND PRIX DE ROME PROJET, BY JACQUES CARLU

the contrary allows me a robust, pertinent and living criticism in all matters pertaining to our present day living architecture. After almost twenty years study of the past I find myself nearer to the next generation than to the last one.

"If I advocate the application of true principles in architecture, whether moral, aesthetic, or scientific, I feel the necessity and the charm of the other arts used with restraint and refinement in relation to architecture, and so very early I became interested in decoration. Many of my friends are good enough to intimate that I am endowed with much imagination, and it may be that I have some gift in this direction; but as I have had time to observe and analyze carefully I am convinced that imagination has the same possibilities as the muscles of development and training, the only condition being that no manifestation of art in its relation to life and the human drama should ever be ignored."

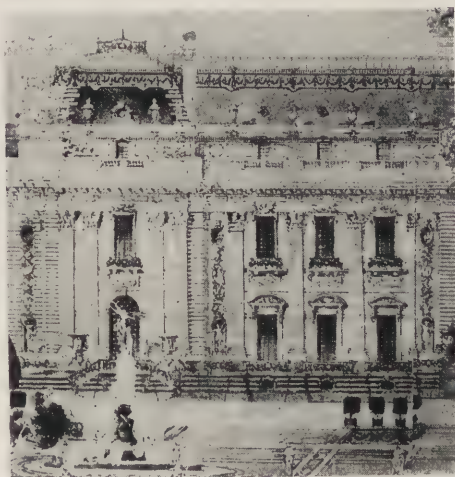
Of Carlu's Grand Prix "Palais de la Societe des Nations" at Geneva, a Grand Prix comrade notes that his design was the simplest and the most monumental solution presented. It has a Court of Honor of grandeur and beautiful proportions. The parts devoted strictly to such business as conventions, conferences, committees, commissions, etc., are all well related to the vast "Salle des Pas Perdus". The grand conference hall was well developed, harmonious in size, preceding that of receptions

which was given the amplest possible development along the lake. There is harmony between all parts, all elements are well located, and the character and accentuations of the different divisions given by the program are well treated. It has distinction and good taste and must be considered well above the level of the average Grand Prix. It is composed in plan according to the well-known tradition of the Laloux atelier, all on one principal axis with greatest possible elimination or suppression of all minor axes both horizontally and vertically.

Carlu's sketches of travel or imagination, as well as the scholastic drawings are all, except a very few, water colors executed in tempera. This is his favorite medium although when he desires he does do a brilliant pure water color. It was "Hop" Smith who years ago brought out a theory that in water colors it was best to paint sunlight with opaque colors and shadow with transparent colors. It is quite easy to see that a practice of this kind is carried out by Carlu, but with tempera or gouache

he succeeds in keeping shadows transparent and also avoids being muddy or milky.

Recently, and perhaps for the first time in America, three sets of drawings by one scholar, corresponding to three years of his work at the French Academy in Rome, have been exhibited. They are now reproduced. The work of Carlu's first year



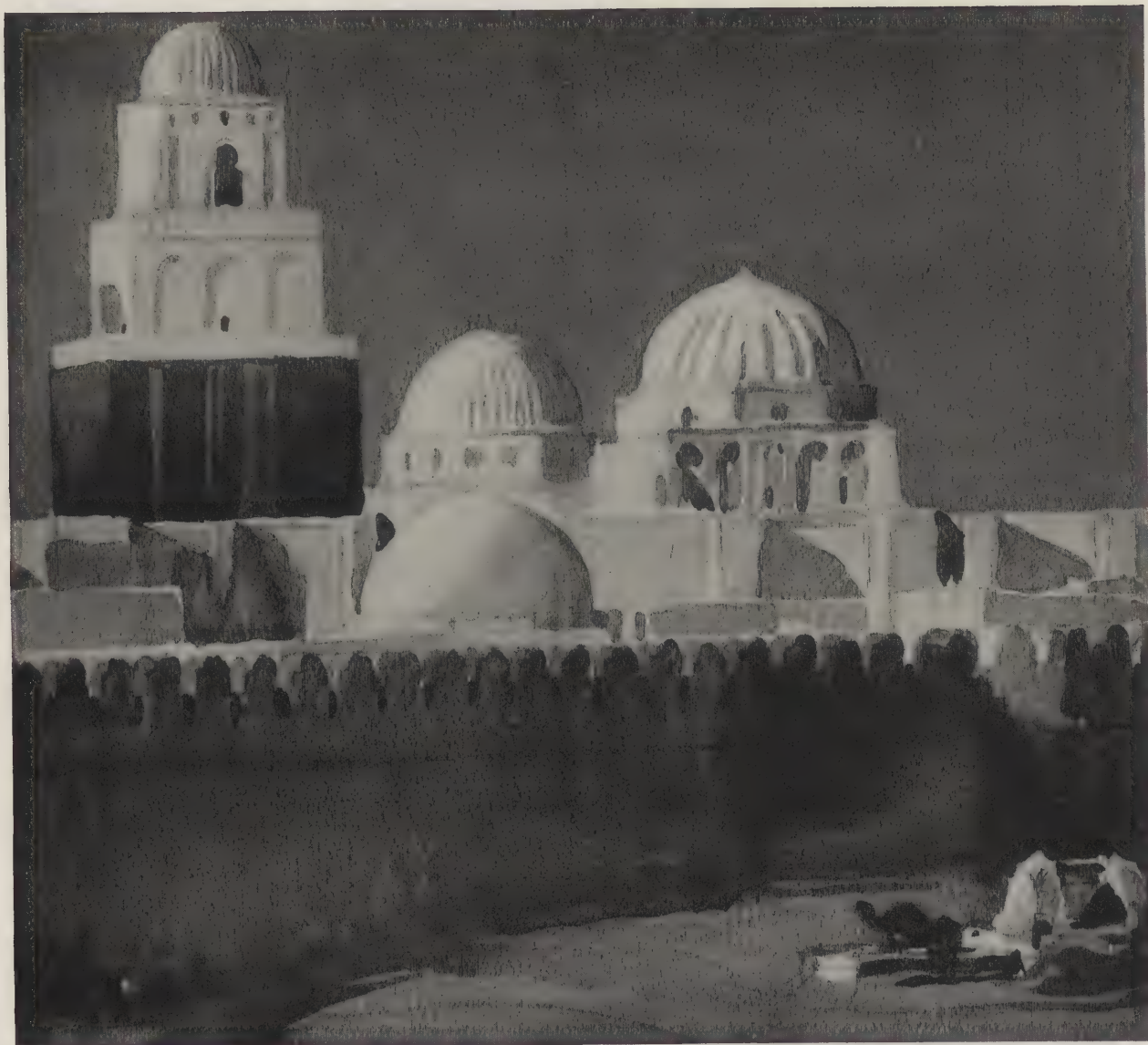
FRAGMENT OF 1913 GRAND PRIX PROJET, BY JACQUES CARLU





OVER MANDELLO, LAKE COMO, WATER COLOR BY JACQUES CARLU





MOSQUE IN KAIROOAN, TUNISIA. WATER COLOR BY JACQUES CARLU

was a mural painting in tempera, about four by ten feet in size, instead of the usual geometrical projected line drawing rendered in india ink or water color washes. It tells its own story in the illustrations except in respect to color, which is the cool grey of aged stones and antique bronzes. Romulus, Remus and the wolf, against a pale imperial scene, are balanced on either side by charming groups of Roman fragments. The picture is composed with a keen feeling for dramatic values and a grandeur truly Roman. It is worthy of a permanent setting, or, even better, it should be enlarged into a great mural panel near the size of the actual fragments.

Less dramatic than the Roman composition but more in the mood of the Renaissance was the second year envoi by Carlu. The subject, the elevation of the group of buildings at the end of the large plaza and round the small plaza in Venice, with their striking details, is too well-known to describe. The composition is arranged as a triptych framed in

very heavy gold mat which forms an architectural silhouette. In the foreground, the courtly and ecclesiastic gathering parts to allow the eye to pass to the central Byzantine, Renaissance and Gothic group. The mural, for such it is, vibrates with the light of a clear Venetian day. Perfect architectural balance, truth in color and texture of materials, well filled areas, well related spaces, interesting details properly subdued to the general composition, all tell of architectural training. The Campanile with its marked vertical accent, so difficult to compose in the picture, is skillfully broken by the garland and balanced by details of a ship. It is a mural composition with one major axis and with all minor axes suppressed by the artist to minor importance, as in his winning Grand Prix plan.

The third set, studies of the Palatine Hill and Roman Forum from the seventh to the first century B. C., forms a complete exhibition in itself, and occupied the scholar not only for the last year of



his residence in Rome but also, as usual, after his return to Paris. Such drawings are hardly possible for one who has not known the archaeological and artistic associations of Rome. The set comprises a large plan, not reproduced, which shows existing conditions in relation to actual fragments of walls, foundations, old road-beds, etc., that remain from that era; a restored general plan with a detail of the restored plan showing the Temple of Jupiter and its immediate entourage; and numerous studies, together with the final elevations and perspectives. The drawings are in yellow, orange, red, and purple, with occasional notes of green. They have a decidedly warm glow, especially in the general restored plan, where the colorful mosaics and numerous awnings over the streets add to the richness and splendor of color. The detail plan of the Etruscan Temple to Jupiter has scarlet vermillion as a dominating note. That this building was decorated by Etruscan artists is vouchsafed by Pliny. Even the location of certain columns was determined from an antique description.

In a restoration of this early and dim period, the actualities,—the site, the ancient descriptions and inscriptions, and even the legends,—form the starting point; but they alone would never produce a restora-

tion such as this. It demands an architect-archaeologist who possesses great imagination. The recent decade has thrown more light upon Etruscan art, and has raised our estimate of its worth to a much higher level. Love of strong color and vigor, as well as a high degree of technical skill in artistic things, were among the great qualities of the people of this time. If you question whether this Roman house or shop stood here or there on Viscus Tuscus, the answer is that the scale, character, and plan grouping of the houses, in relation to the same factors in a temple group or groups, are the real truths. In all arts minor lies exist for the sake of general truths. Some of the great truths told are of the massiveness of the Fortress; of the dignity and glory of the Temple of Jupiter, with scale truly of the gods; of the Asylum on the only possible site on the Capitoline Hill; of the richness, variety and masterful grouping of the memorials; of the naturalness of the streets. Here is the studied plan of the gradual growth of an irregular city. In imagination you see the crowds approaching the temple and the forum in the hollow, with its market, minor temples, halls of justice and porticos of lecture.

After all a man's work speaks louder than words!



DIPLOMA OF FONTAINEBLEAU SCHOOL OF FINE ARTS  
CHARCOAL DRAWING BY JACQUES CARLU





ALTERNATIVE SKETCH PERSPECTIVES SUBMITTED TO CLIENTS



SKETCH PERSPECTIVE APPROVED BY CLIENTS



FINAL PERSPECTIVE OF BUILDING AS CONSTRUCTED

FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS



# A BUILDING ON THE BOARD

SHOWING THE PROGRESS FROM THE SKETCH TO WORKING DRAWINGS  
OF THE FIRST NATIONAL BANK, BLAIRSVILLE, PA. DENNISON & HIRONS

TO DECLARE THAT DRAWINGS speak to the draftsman in his own language is not to add greatly to the store of human knowledge. To present a set of drawings pertaining to one building, showing its progress on the board "from sketch to finished working drawings," as the classified ads have it, is to test experimentally the truth of the foregoing bromide. PENCIL POINTS, in the pages accompanying this article, has attempted to make such an experiment, using for its subject matter a selection from the drawings turned out in the office of Dennison and Hiron, of New York, for the building of the First National Bank of Blairsville, Pa. The bank selected for illustrative purposes is an average one, such as might house a banking establishment in any moderately-sized city or town in the United States.

In the beginning, three sketch plans with corresponding perspectives were submitted to the clients, who selected one set for further development. On page 290 are shown three sketches, one of which was selected, and the final perspective of the building as eventually built, from which can be gained an idea of the development of the exterior design. The two sketch plans on this page include one of the rejected arrangements and the one which was developed into the working drawing on page 294. Two of the suggested designs for the interior, worked up into perspective sketches from the clients' ideas, are given on page 298 to be compared with the final interior design shown by the sections on pages 294 and 295.

The front and side elevations were studied at eighth scale by means of a number of pencil sketches on tracing paper, only a few of which, regrettably, could be shown here in the limited space available. The final development of the design is shown by the working drawings of the

main floor plan, front and side elevations, longitudinal section, two cross sections, and two three-quarter scale detail sheets.

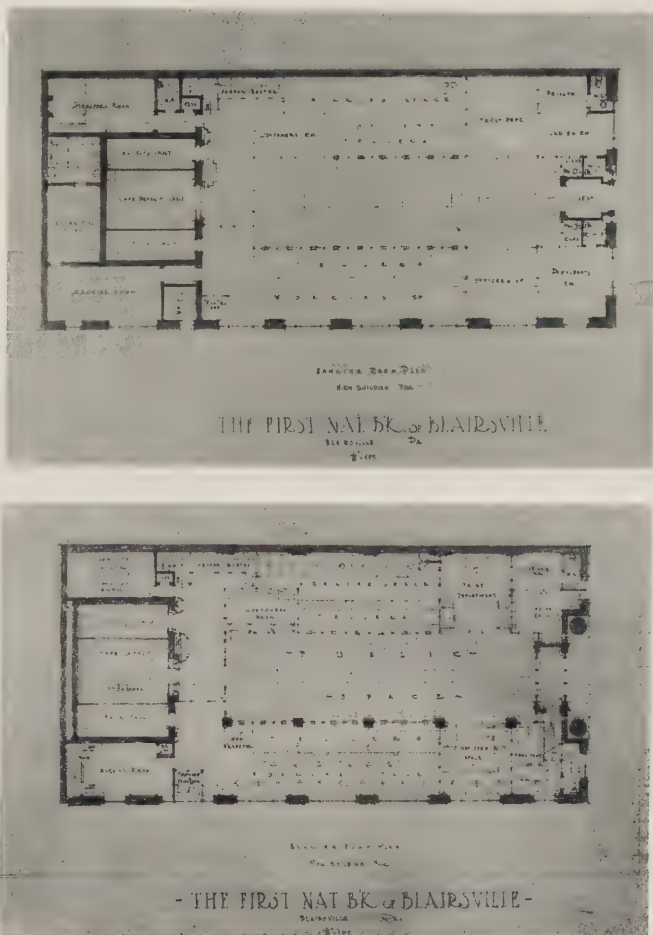
The drawings made for this job were unusually complete. The plans and elevations were studied very thoroughly in pencil on tracing paper and followed by a complete set of working drawings made in pencil on cloth. Final revised working drawings were made over the latter in ink on cloth, at which

time the necessary late revisions were included. Every bit of sculptured and ornamental stone detail was studied by plastelline models, and casts were made from which the stone was cut on the job. This work of modelling was done by the architectural sculptor, Anthony di Lorenzo, in his own studio, under the direction and supervision of the architects. The plaster models thus made were all colored the exact color in which they were executed, on account of the false conception of the scale of the ornament which otherwise would have been given by the cold white plaster.

In the early stages of the study of the design, numerous cardboard models of the exterior, accurately made at eighth-inch scale, were employed to give the clients an adequate visualization of their building, especially in regard to its proportions, its color, and the emphasis

given to details. It is pointed out by the architects that cardboard models are immensely superior to plaster not only on account of their cheapness and the rapidity with which they can be made, but because they give a close approximation of the actual color and texture of materials used in the building.

Lack of space precludes the presentation of more studies and working drawings for this building, and especially some photographs of the plaster models of detail. Perhaps, however, the reader can form, from the material given, an adequate idea of the building and of the drawings necessary for its creation.



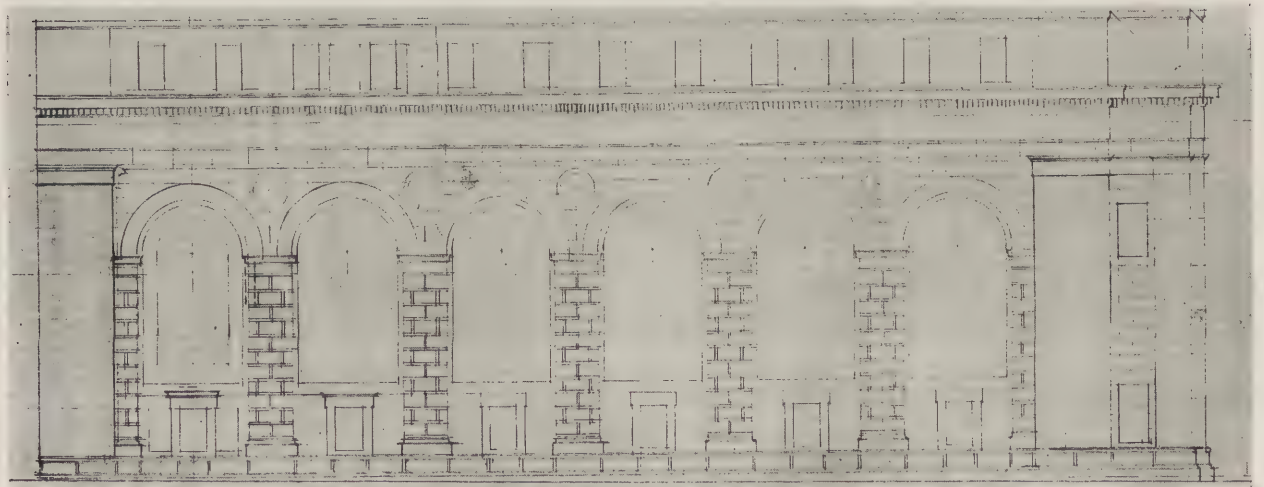
SKETCH PLANS SUBMITTED TO CLIENTS



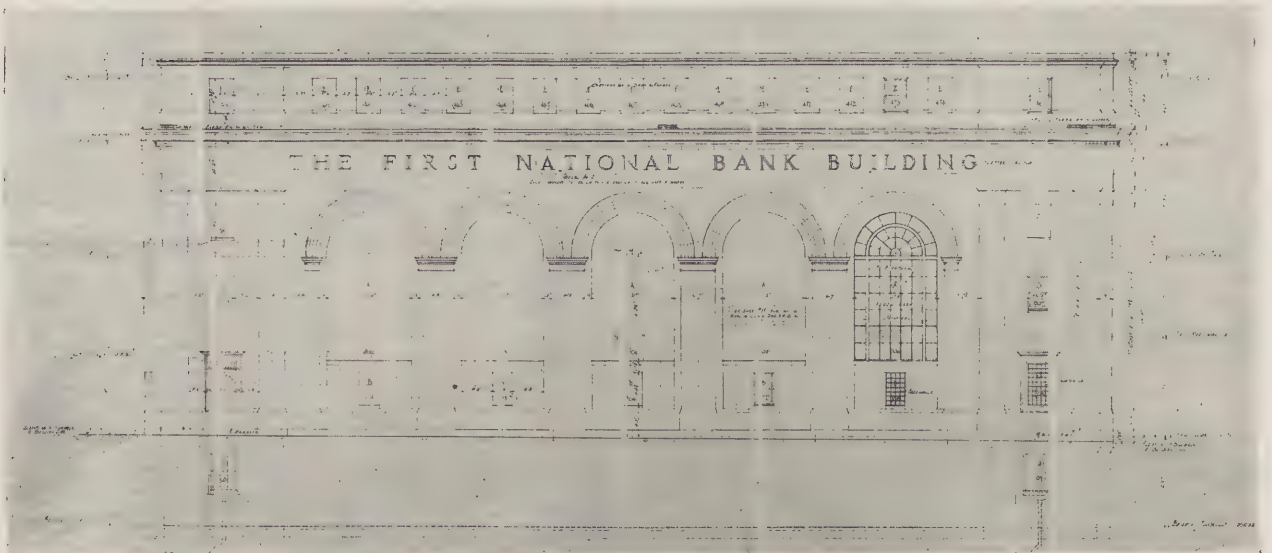
PENCIL POINTS



STUDY FOR SIDE ELEVATION



STUDY FOR SIDE ELEVATION



WORKING DRAWING FOR SIDE ELEVATION

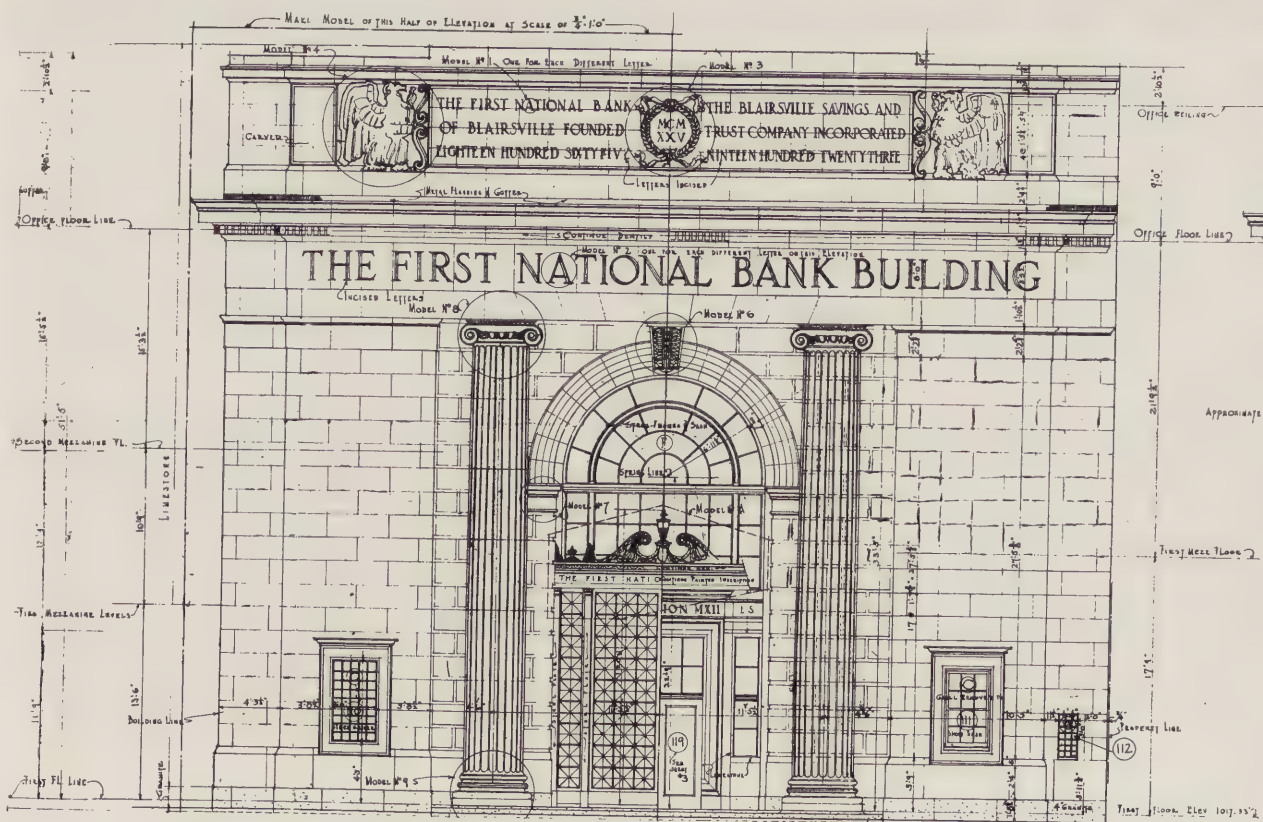
THE FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS.



# A BUILDING ON THE BOARD



STUDY FOR FRONT ELEVATION

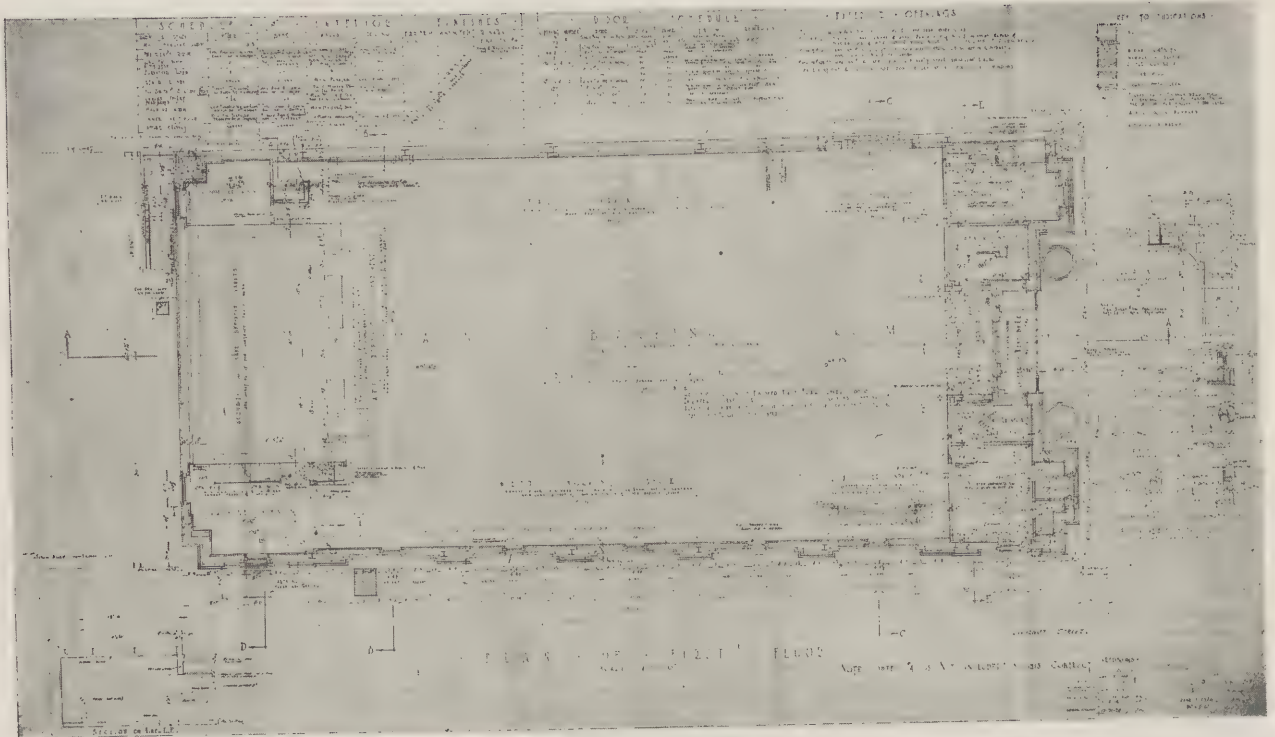


WORKING DRAWING FOR FRONT ELEVATION

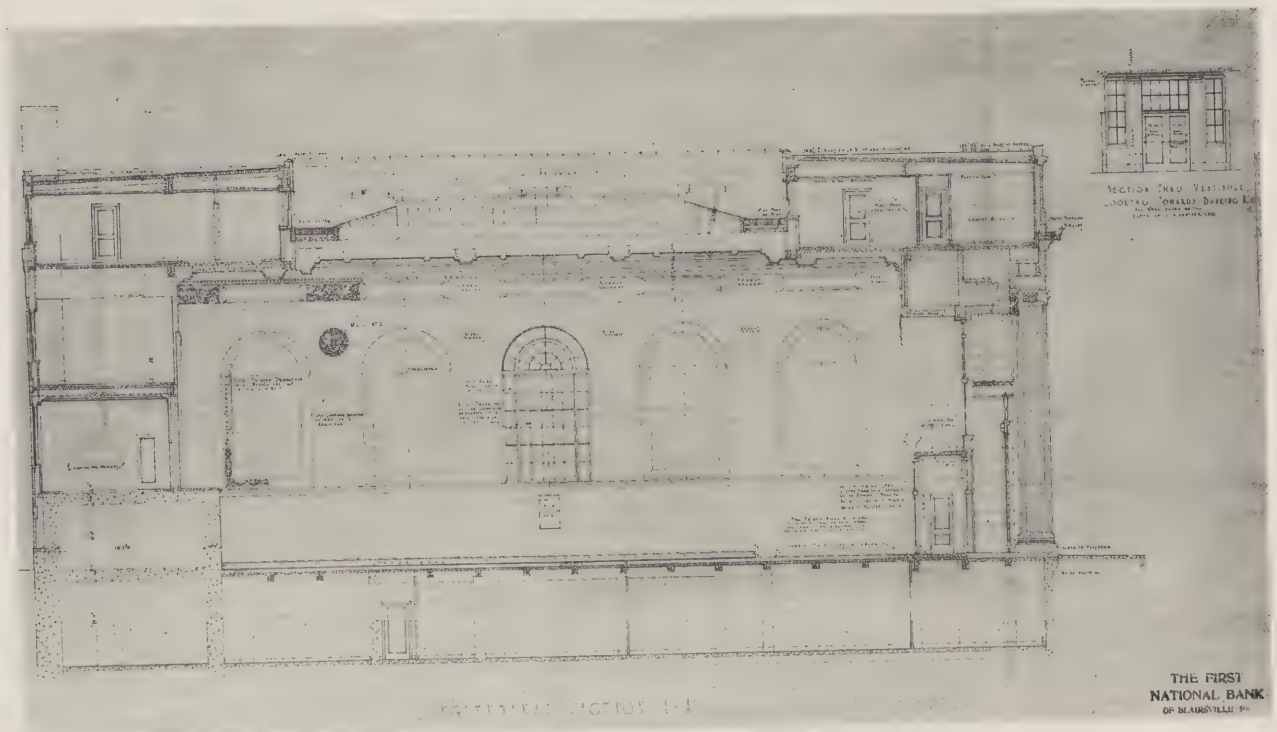
THE FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS.



# PENCIL POINTS



PLAN OF FIRST FLOOR



LONGITUDINAL SECTION

FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS



Architectural drawing of the interior of the Mausoleum at Halicarnassus, showing the three large arched niches and the central circular vault door. The drawing includes labels for "Repeat Ornament", "Model No. II", "Repeat Joining", and "Repeat Ornament". It also shows the "Vault Door & Architrave Not in Contrast" and the "Entrance Porch".

FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS



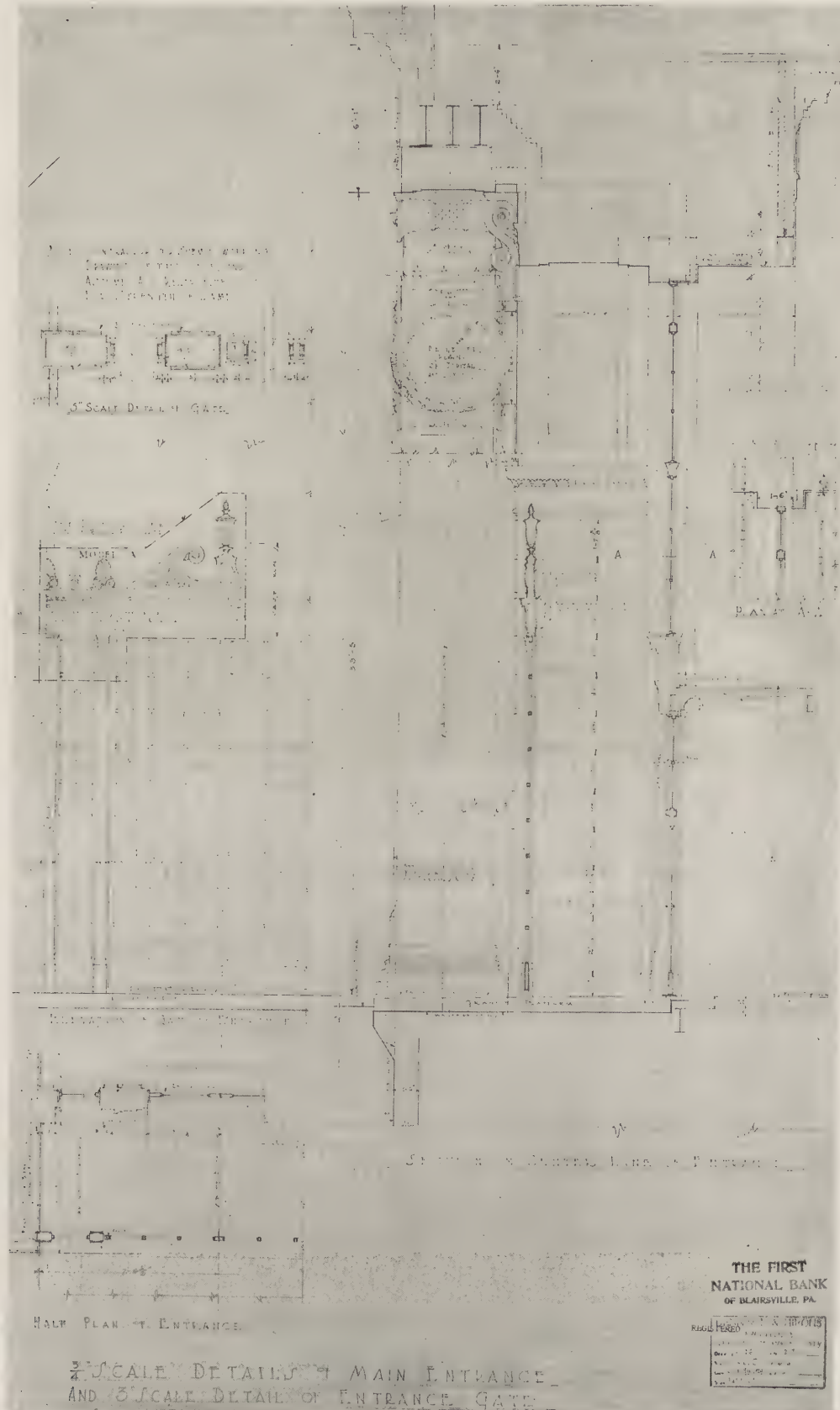
PENCIL POINTS



DETAIL SHEET AT THREE QUARTER INCH SCALE  
FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS

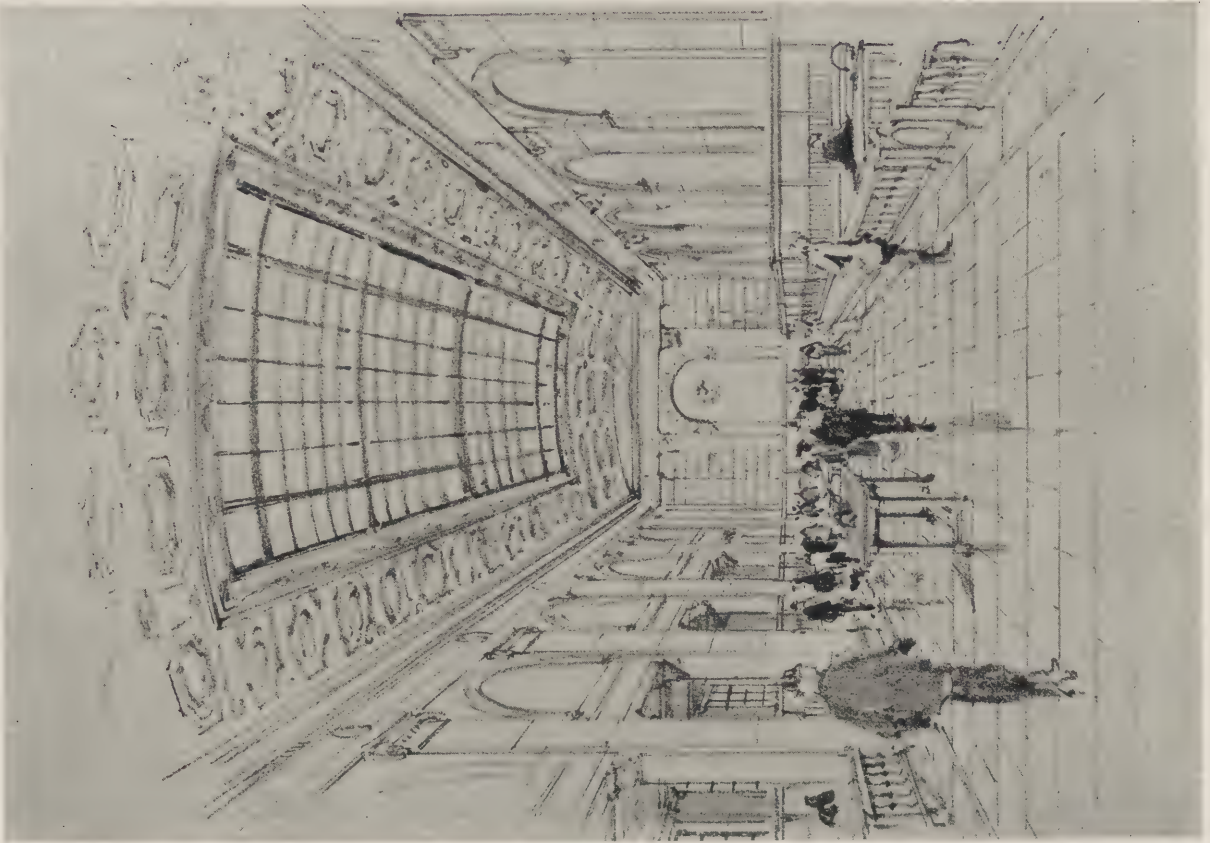


# A BUILDING ON THE BOARD



DETAIL SHEET AT THREE QUARTER INCH SCALE  
FIRST NATIONAL BANK, BLAIRSVILLE, PA., DENNISON & HIRONS, ARCHITECTS





INTERIOR PERSPECTIVES WORKED UP FROM CLIENTS' SUGGESTIONS, FIRST NATIONAL BANK OF BLAIRSVILLE, PA.  
*(Working Drawings Show All Mosaicine Floors Eliminated in Executed Building.)*





PENCIL RENDERING BY ROGER HAYWARD  
NORTH TRANSEPT, CATHEDRAL OF ST. JOHN THE DIVINE



PLATE XV

VOLUME VII

NUMBER 5

*A pencil rendering by Roger Hayward showing  
the proposed design by Cram & Ferguson for the  
North Transept of the Cathedral of St. John the  
Divine now under construction in New York City.*





RELIEF ON ANTIQUE GREEK PEDESTAL, CAT AND DOG FIGHT  
*Rubbing by Edmond R. Amateis*

## OF THE MAKING OF RUBBINGS

*By Leon Keach*

THE MAKING OF A RUBBING is an altogether simple matter for the average practitioner. And certainly there is no other process so conveniently at hand for obtaining full sized reproductions of such as incised lettering, grille patterns, certain ornament in low relief, mosaics, incised brass or bronze tablets, the molding profiles of many antique fragments, and so on. Any hard material cut back from a plane surface, with arrises fairly well defined, lends itself to the making of a rubbing.

The materials needed are paper and wax, unless one includes such fanciful auxiliaries as knee-pads, against abrasion to the patella, in doing floor patterns, or ardent spirits against scorpion bites in warm countries.

As to the paper, you must strike an average between economy and suitability. So ordinary, buff detail paper, though not perfectly smooth of surface, comes near to being ideal. It is reasonable in price, and tough enough; is obtainable in any length, and is of sufficient width. On the Continent one may expect to find it almost as easily purchased as in these United States. But the itinerant enthusiast, your real decalcomaniac, is unable to carry any weight or bulk of detail paper in his compact traveling kit, through Italy or France. Here a solution is found in the wall-paper stores. For they sell rolls of inexpensive, smooth, uncoated, white paper, something over twenty inches wide, and amply well suited to the usual require-

ments. It is true that this paper will not endure very rough treatment, and is yellowed by long exposure to light. Tracing paper is no tougher, it has not the advantage of opacity, and is much more costly.

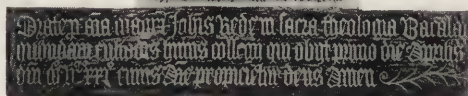
The rubbing material is preferably shoemaker's wax. It is rapidly transferred, and being of a slightly greasy nature there is no trouble later from smudging in handling or transportation.

For such special work as taking off mosaics, with intent to make a color study, a piece of lead has advantages. The tesserae are brought out with more delicacy of line, and tempera colors adhere the easier to a surface that is not greasy.

The actual process of rubbing is too simple to need explanation, but there are a few points concerning it that may be mentioned.

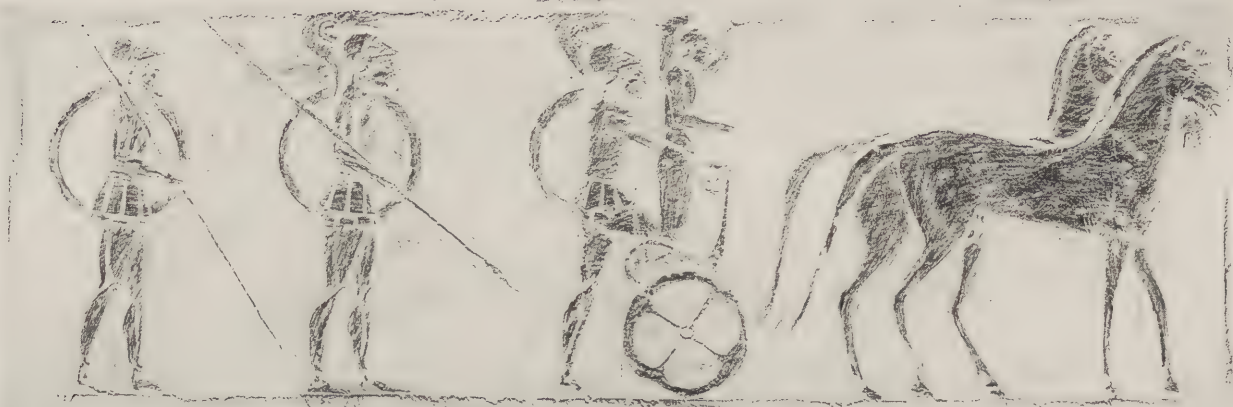
The paper must, of course, be kept absolutely motionless during the work. If it slips, the result is not unlike a photograph where the camera has been moved, and there is little chance of readjusting the sheet to its original position. Where two or more men are assisting one another this misfortune seldom occurs, but occasionally there comes the problem of doing the job single-handed.

The difficulty and fatigue of holding up the paper may then be obviated by the use of such an adhesive as zinc-oxide plaster, ordinary surgeon's plaster. This will do part of



RUBBING BY LEON KEACH





RUBBING BY EDMOND R. AMATEIS, RELIEF FROM GREEK PEDESTAL

the work, at least, if you put little strips of it at the edges of the paper, and permit you to rest your supporting arm from time to time.

Something of the original is bound to be lost in a rubbing; the nicety of a serif or, perhaps, the clear definition of some intricate ornamentation. If the plane of the rubbing surface is badly worn or weathered, this cannot be helped. But with a fair surface an even pressure over all, and, usually, one that is about as heavy as the paper will stand, produces the best results. Here it has been my observation that an attempt to outline the arris lines of what ever you are taking off produces a darker, but a much less accurate one, than the alternate method of going over the whole surface evenly.

The worth of rubbings should be patent enough

to architects. If well made they are more accurate in their field than anything else short of plaster casts, and the former are as easy to make as the latter are difficult. Accurate measured drawings cannot well be obtained of all the excellent lettering one likes to collect, and it is practically impossible to copy mosaic, or any of the surface decoration that comes within the scope of rubbing. In ordinary architectural practice there are many occasions where an easily made rubbing may be worked over in the office, and a curve analyzed or a pattern studied with less difficulty than obtained elsewhere.

In Europe the architect will find the greatest fund of material for this work in a variety to suit all tastes. Algeria, Tunisia, and all shores of the Mediterranean have fascinating patterns to be

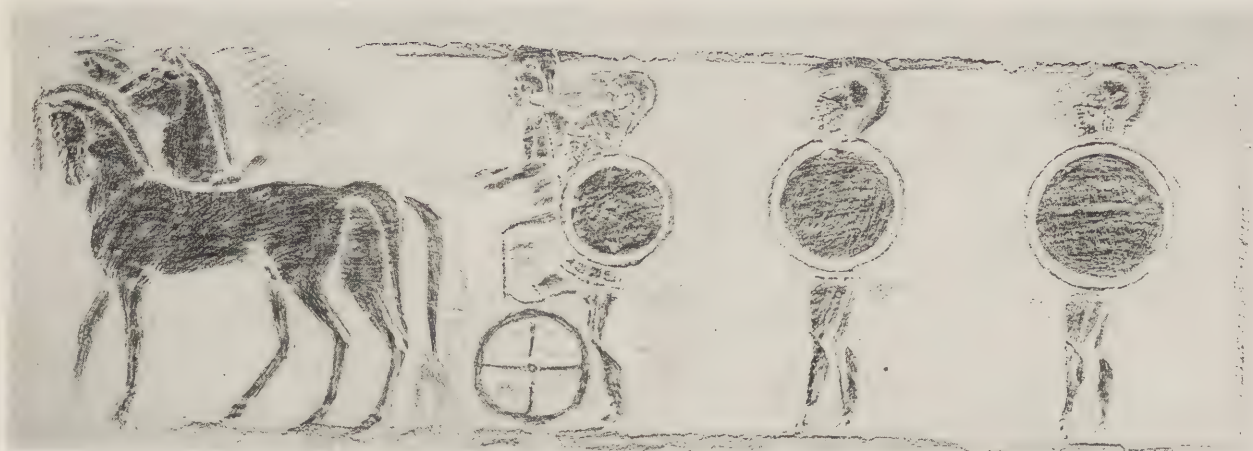


PORTION OF RUBBING BY FRANCIS E. LLOYD



RUBBING BY EDMOND R. AMATEIS, ANTIQUE GREEK PROTOTYPE OF HOCKEY





RUBBING BY EDMOND R. AMATEIS, RELIEF FROM GREEK PEDESTAL

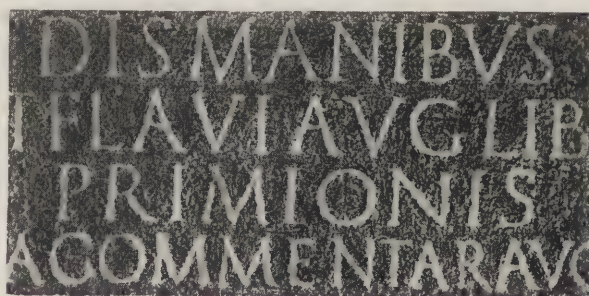
taken off, if one knows his ground well enough and his rights as an infidel. Two traveling scholarship men afield in a Mohammedan country, being unacquainted with such rights, once made shift to lift a well designed grille, not cognizant of the fact that behind it reposed a sacred tibia, supposed to be a relique of the Prophet. Their ejection was quickly and neatly accomplished by outraged worshippers, and for a moment there actually hovered near them the shadow of the "Destroyer of Delights and the Sunderer of Companies."

A rough program could be arranged for making an Italian collection of rubbings. In Sicily, and Southern Italy there are mosaic patterns. These, with a few color notes, or even written annotations of color, and some photographs, will help one to refresh his memory of that most difficult art

when he is far removed from good examples of it.

At Naples there is the museum with its splendid Roman fragments of lettering and ornament. But much red-tape intervenes between the desire and the right to agitate one's shoemaker's wax over these antiques, though it can be cut, given patience. Rome is the richest of all the opportunities. Prime examples of ancient lettering abound, from a panel in the Forum of Trajan and a tomb near the Porta Salaria down the list. There is a profusion of Renaissant panels in wall and pavement, Alexandrine floors, Cosmatesque work, and the like.

You leave Rome with a satisfying complete assortment. But there are seductive bits in Florence and North Italy; iron work here and there, ornament of the early Renaissance, the mosaic of Venice and Ravenna.



PORTION OF RUBBING BY TOM H. JONES



"WRESTLING," RUBBING FROM GREEK PEDESTAL, BY EDMOND R. AMATEIS



D O M  
 HIERONYMO AGVCCHIO  
 BONONIENSI  
 S RE PRESBYTERO CARDINALI  
 S PETRI AD VINCVLA  
 QVI PHILIPPI SEGAECARD PLACENTAVVNCVLI  
 PRAECLARAS VIRTUTES AEMVLATVS  
 CVM APOSTOLICA ESEDITRIGINTAFEREANNOS  
 VARIISIN LOCIS OPERAM STRENVENAVASSET  
 AC MULTIPLEM ETIAM TVM MVNERVM  
 TVPARVMQ MOLEM IN VRBE SVSTINERET  
 VIR VEREMAGNVSETAD SVMMAMQVALEQNATVS  
 AB OPTIMO GRATISSIMOQ PONTCLEMENTE VIII  
 AMPLISSIMAE DIGNITATIS INSIGNIA  
 BONORVM OMNIVM VOTIS DIVITIJS SERVENDA  
 CONSECVTVS EST  
 IO BAPTISTA AGVCCHIVS  
 PROTONOTARIVS APOST  
 FRATRI OPTIMO P  
 VIXIT ANNOS L MENSES III DIES XII  
 OBIIT EADEM DIE QVALEO PP XI  
 XXVII APRILIS MDCV

RUBBING BY TOM H. JONES FROM WALL OF ST. PETER IN VINCOLI, ROME.



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





*Study for Restoration of the Capitoline Hill and Jupiter Temple*  
*Size of Original 36" x 18"*



*Jupiter Temple Built by Tarquinius Superbus*  
*Size of Original 26" x 48"*  
 RENDERINGS IN TEMPERA BY JACQUES CARLU





*Tarpeian Rock, Rome*

*Size of Original 48" x 42"*

RENDERING IN TEMPERA BY JACQUES CARLU



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





PAINTING BY CARLO CIAMPAGLIA  
DESIGN FOR WALL PAPER PATTERN



PLATE XVI

VOLUME VII

NUMBER 5

*This design was made by Carlo Ciampaglia, Fellow in Painting of The American Academy in Rome, 1921-23, for Robert Graves & Co. The original panel is 10 feet by 6 feet and forms one unit in a repeat pattern, so that it can be adapted to any size wall. The sky may be continued upwards as far as desired. Printed from wood blocks in twelve colors and in five sections.*





Courtesy of M. Knoedler & Co.

ETCHING BY HERMAN A. WEBSTER  
LE VIEUX PONT NOTRE DAME, PARIS



PLATE XVII

VOLUME VII

NUMBER 5

*Herman A. Webster, a specimen of whose work is shown on this plate, is one of the foremost American etchers of his generation. Martin writes of him: "In his architectural work, Webster sets his theme upon the plate with fine skill of arrangement and with exquisite draftsmanship." Webster was an enthusiastic admirer of the work of Meryon whose influence is perhaps evident in this plate.*



# COMPETITION FOR THE LeBRUN TRAVELING SCHOLARSHIP FOR 1926

## REPORT OF THE JURY OF AWARD

THE JURY OF AWARD begs to report that it has carefully studied the programme for the above Competition and that it examined carefully into the merits of the various drawings submitted, upon the afternoon of Friday, March 19, and the morning of Saturday, March 20th. The result of the deliberations and of several series of ballots was as follows:

- 1st Place and the Traveling Scholarship to Competitor No. 6, Mr. Ferrari, 152 East 47th St., New York City, nominated by John Mead Howells.
- 2nd Place and 1st Mention to Competitor No. 5, Mr. Rowland H. Crawford, 3733 Locust Street, Philadelphia, Pa., nominated by C. C. Zant-zinger.
- 3rd Place and 2nd Mention to Competitor No. 3, Mr. John Arnold Bower, 130 South 39th Street, Philadelphia, Pa., nominated by Harry Sternfeld.
- 4th Place and 3rd Mention to Competitor No. 2, Mr. Clarence Dale Badgeley, 162 East 37th Street, New York City, nominated by Harry V. K. Henderson.

The following were commended for the work presented by them:

Allmon Fordyce, Elmhurst, Long Island.

Erik Kaeyer, Yonkers, N. Y.

Emil W. Klee, New York City.

Walter Thomas Rolfe, Fargo, North Dakota

There were 24 sets of drawings presented from the following geographical distribution: New York City 7, Boston 3, Philadelphia, Detroit, Chicago and Princeton each 2, and 1 each from Fargo, Yonkers, Norristown, St. Louis, Providence and Harvard.

A high level of architectural knowledge was displayed generally by the competitors, but they apparently failed to grasp the simple character of the problem as presented in the programme and they sought needless complications. In many instances the open air auditorium was so enclosed as to require only a roof to transform it into an indoor auditorium, and the Jury regretted that a number of solutions of interest were studied and presented in a way that indicated lack of fundamental knowledge in architectural planning.

The solution presented by Mr. Ferrari was simple, straight forward and practical. It had the character of a municipal building and one that was intended for public assemblages. It was suitable to be one of a group of public buildings and would look well if built and seen from all sides. The scale, both of the plan, section and elevation, was good. The horizontal and vertical circulations were excellent and the relation between the auditoriums and amphitheatre was good. The Jury was of the opinion that the amphitheatre would have been greatly improved had it been less steep in section.

The solution presented by Mr. Crawford was also simple, straight forward, practical and interesting, but it lacked charm in its architectural expres-

sion. In character, it seemed unnecessarily heavy and was displeasing to the Jury. The opening between the two stages was a good feature and the relation in section between the auditorium and amphitheatre was excellent.

The solution presented by Mr. Bower was very interesting and the outdoor quality of the amphitheatre was greatly commended. The reception hall overlooking the amphitheatre was an added charming feature to the problem. The section was very good indeed, but the plan was not well studied, nor well expressed.

The solution presented by Mr. Badgeley was also interesting. The combined stage for the auditorium and amphitheatre was very good and the amphitheatre itself splendid. The whole conception of the general scheme was very good, but the failure to express it in better architectural form prevented a higher ranking for Mr. Badgeley.

Very respectfully submitted,

WILLIAM HARMON BEERS

RICHARD H. DANA

LANSING HOLDEN

EGERTON SWARTWOUT

JULIAN CLARENCE LEVI, *Chairman*

## JACOBSON & CO. AWARD PRIZES

THE SECOND ANNUAL competition offered by Jacobson & Co., the program for which was published in PENCIL POINTS, was judged in New York on April 9th. The jury was to have been Messrs. Aymar Embury, Howard Greenley and Hobart Upjohn. Mr. Upjohn was unexpectedly prevented from attending and Mr. Ralph Reinhold was asked by the other jurors to serve as the third man in the ring.

The prizes and mentions were awarded as follows:

FIRST PRIZE, \$500.00, to Alfred Kastner, c/o B. G. Goodhue Associates, 2 West 47th Street, New York City.

SECOND PRIZE, \$300.00, to James Edward Agengroad, c/o Mellor, Meigs & Howe, 205 So. Juniper St., Philadelphia, Pa.

THIRD PRIZE, \$200.00, to Alfred Thompson Granger, 4651 Grace Street, Box 295, Route 2, St. Petersburg, Fla.

FIRST MENTION, to S. M. Kurtz c/o Allen & De Young, 510 Lexington Ave., New York City.

SECOND MENTION, to Albert Sturr, 14 East 45th Street, New York City.

THIRD MENTION, to F. J. Lippell, 43 Freund Street, Buffalo, New York.

The report of the jury and reproductions of the winning drawings are scheduled for publication in the June issue of PENCIL POINTS.





PERSPECTIVE

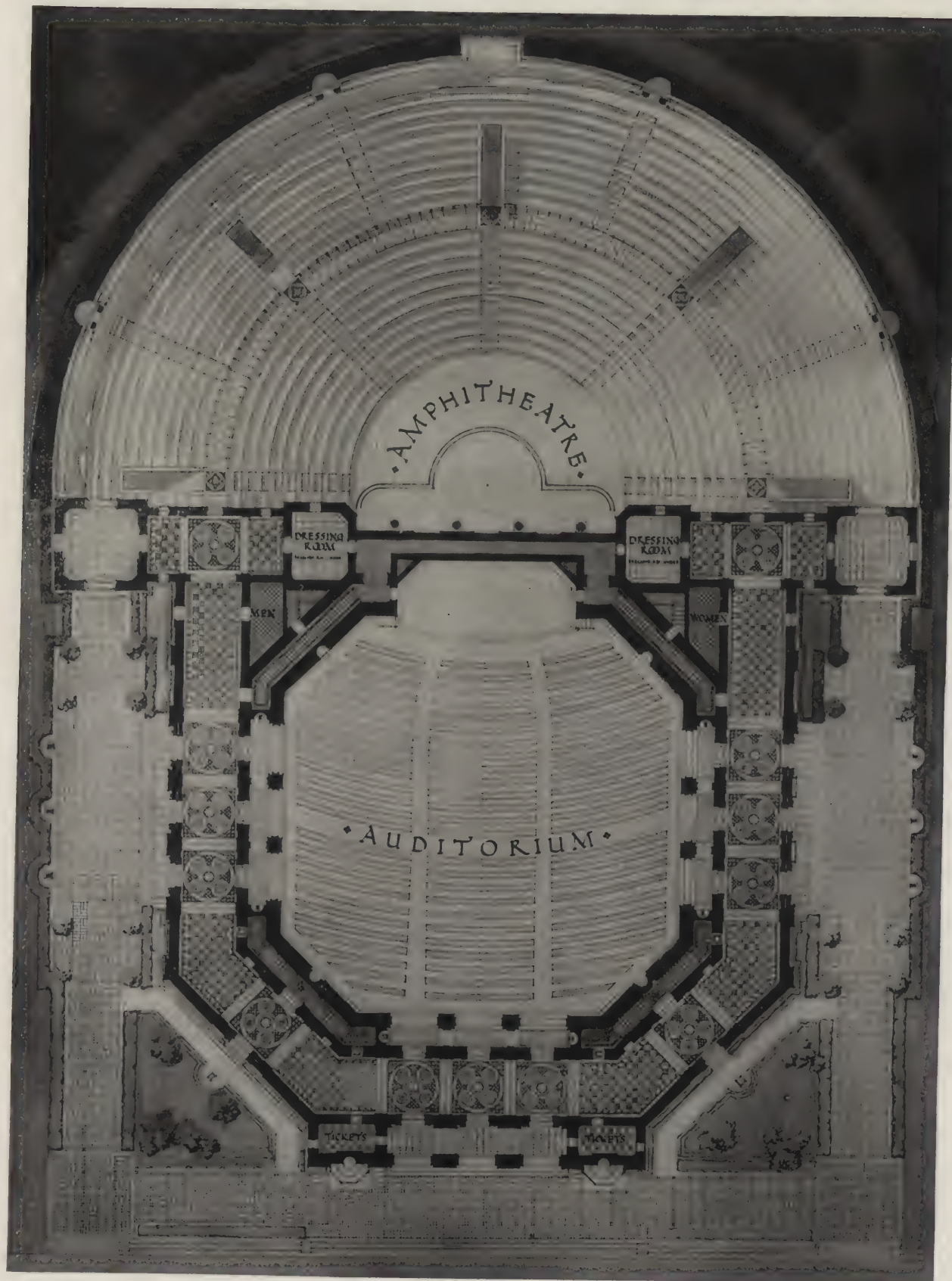


THE LE BRUN  
TRAVELLING SCHOLARSHIP  
MCMXXXVI

SECTION

PRIZE WINNING DESIGN BY WILLIAM FERRARI





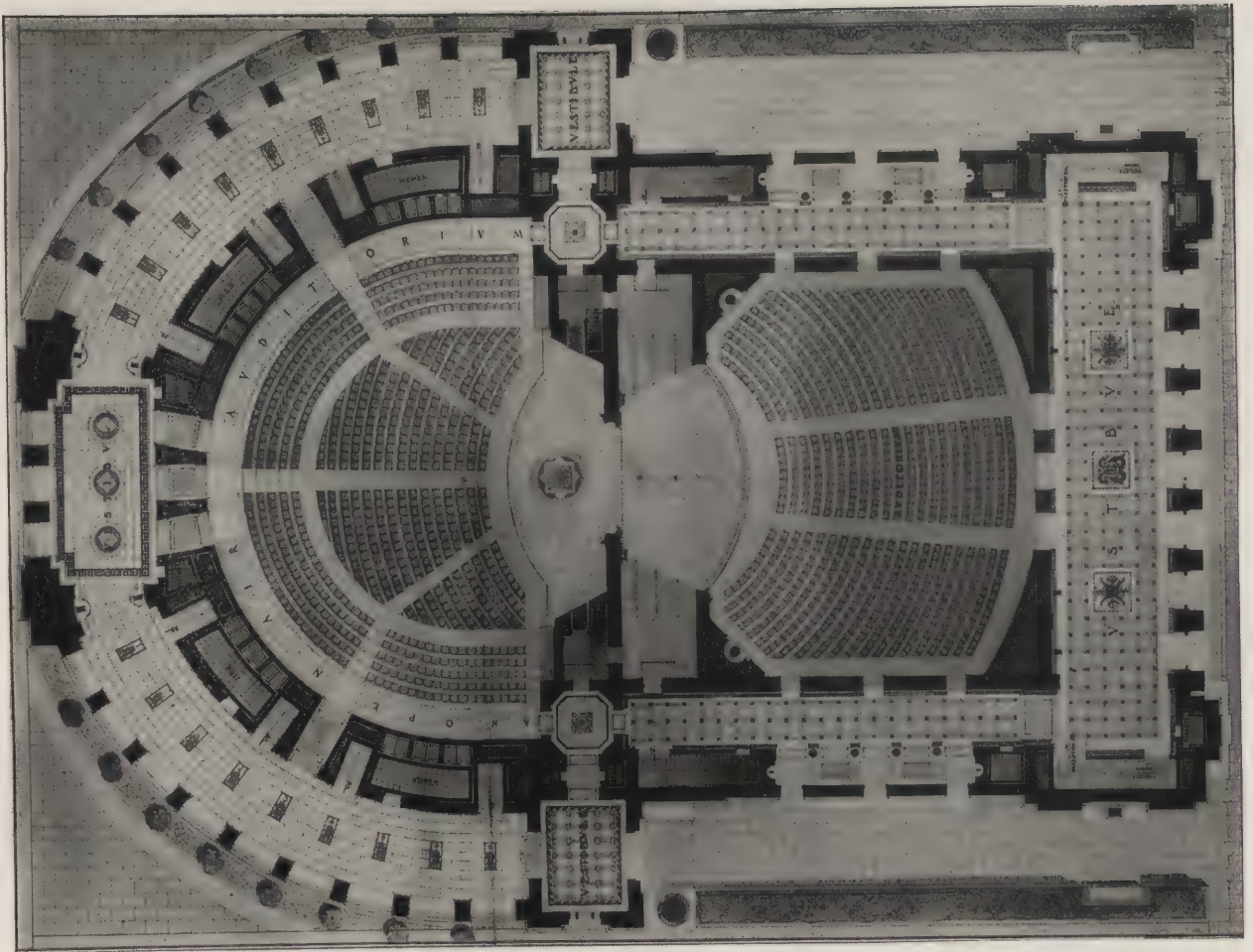
PLAN OF PRIZE WINNING DESIGN BY WILLIAM FERRARI



PENCIL POINTS



PERSPECTIVE



PLAN

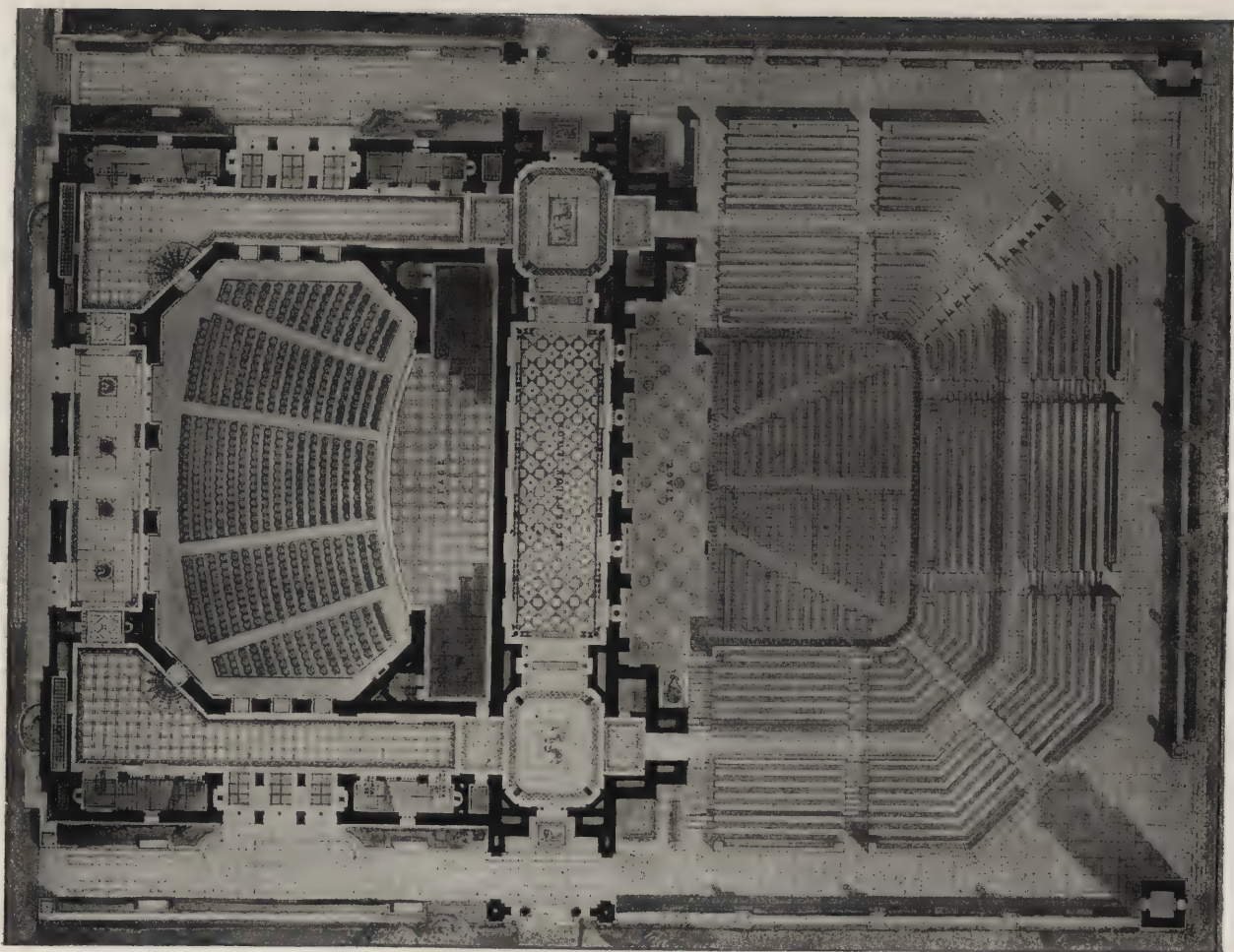
DESIGN BY ROWLAND H. CRAWFORD AWARDED SECOND PLACE AND FIRST MENTION



LE BRUN SCHOLARSHIP COMPETITION FOR 1926



ELEVATION

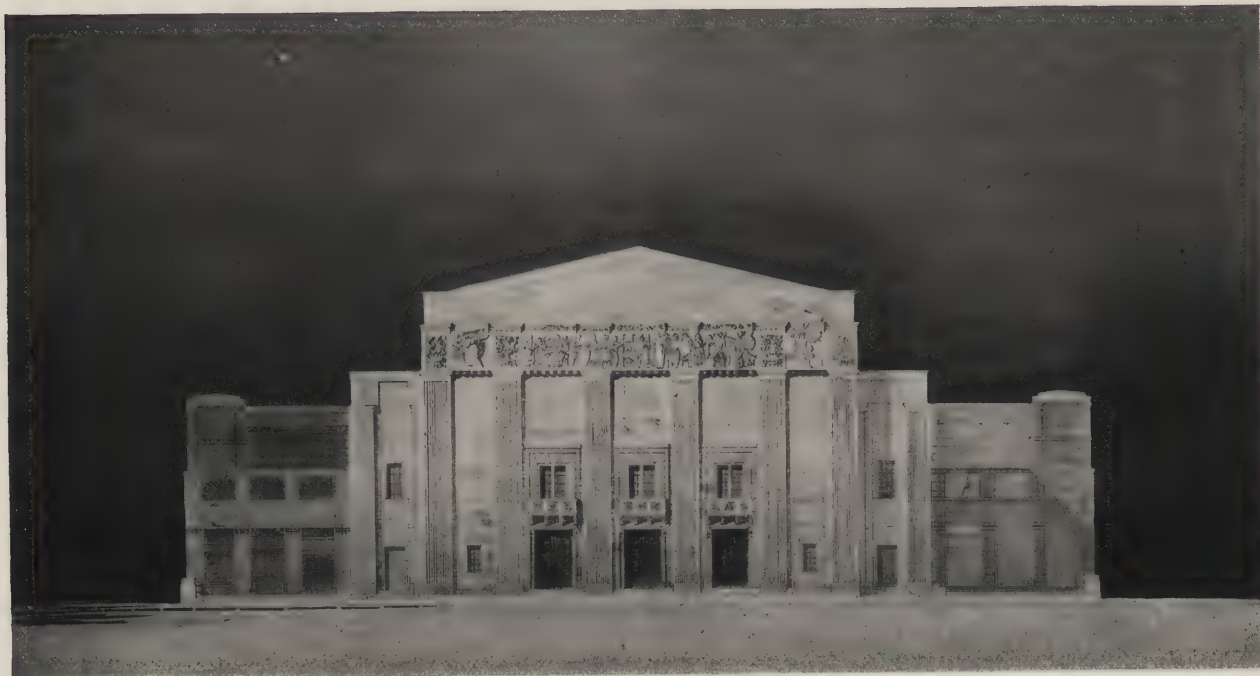


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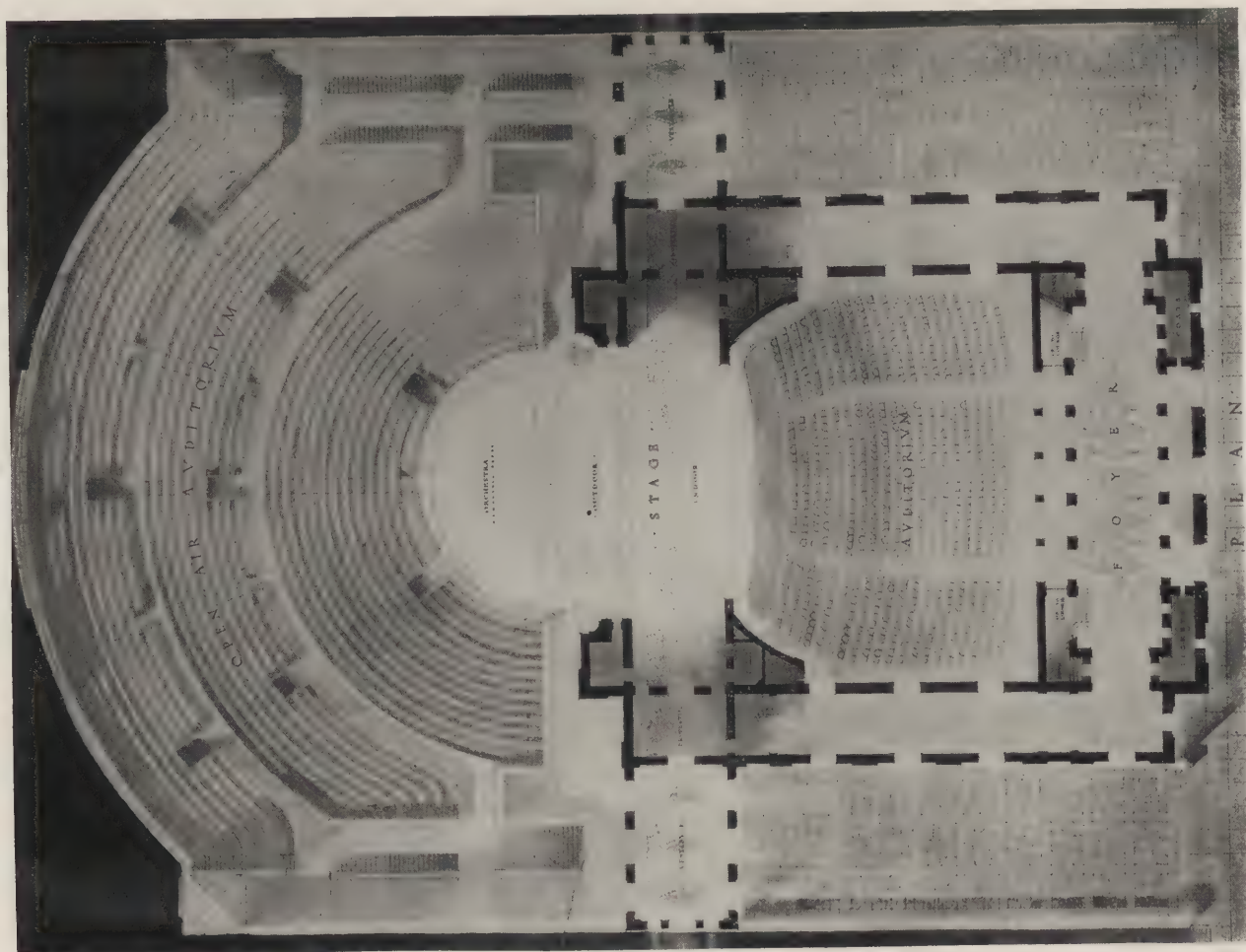
DESIGN BY JOHN ARNOLD BOWER AWARDED THIRD PLACE AND SECOND MENTION



PENCIL POINTS



ELEVATION



PLAN

DESIGN BY CLARENCE DALE BADGELEY AWARDED FOURTH PLACE AND THIRD MENTION



# PENCIL POINTS

REG. U. S. PAT. OFF.

Published Monthly by

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Instructions for change of address should give both old and new address and must reach this office before the 20th of the month to be effective with the mailing of the following number.

MAY, 1926

### THE AMERICAN ACADEMY IN ROME

FROM A LETTER RECEIVED by C. Grant LaFarge from Charles R. Morey, Professor in Charge, School of Classical Studies, we quote the following:

"Since my last news letter there have been four Open Meetings and six lectures. In the Open Meeting of February 12th, Mr. Dennis and Miss Elizabeth Lawrence collaborated on a critique of the Garrett manuscript of Marcanova, Mr. Dennis giving his results on the history of the manuscript, and Miss Lawrence classifying the fifteenth century school to which the drawings belong. On Feb. 15, Mons. Wilpert read a paper on the re-working of Christian sarcophagi, which will probably be published in the Art Bulletin. The Open Meeting of Feb. 17th was devoted to Miss Marion Lawrence's 'City-Gate Sarcophagi', a study of a certain class of fourth century sarcophagi with a view to estimating their evidence for Oriental influence on late Roman art, and to Mr. Capps' paper on the Consular Diptychs, in which he isolated a class of diptychs manufactured by Alexandrian workmen. Comm. Nogara lectured on Feb. 26th on the origin of the Etruscans and their language. The Open Meeting of March 3rd consisted of Miss Lawler's critique of contemporary reconstructions of the Greek Dance, with her own reconstruction of a particular type thereof, and Professor Van Buren's notes of emendations to ancient authors and Pompeian inscriptions. Miss Gertrude Robinson read a paper on March 5th on the grottoes of South Italy used for monasteries by Eastern monks in the Middle Ages, and their frescoes. Senator Ricci gave us two lectures instead of one on the evolution of stage scenery from ancient to modern times, and arranged, for illustration of his lectures, a very fine exhibit of photographs and books at the Academy. His lectures, given on March 8th and 11th, were of a very high literary quality and extremely illuminating. The last Open Meeting came on March 10th, when Mr. Robinson read on the interpretation of the recently discovered Acarnanian-Aetolian alliance of the third century B. C., and fixed its date; I read a note on a painted panel in the Vatican, belonging to the Museo Cristiano, of which I had undertaken the catalogue. The schedule closed March 12th, with a very fine paper by Franz Cumont on the remains and paintings of Doura in the Euphrates valley.

"Miss Taylor, Professor Ullman, Professor Van Buren and myself have given lectures within the period covered by this newsletter, before the British and American

Archaeological Society. Miss Taylor's subject was 'The Origin of the Hellenistic Ruler-Cult'; Professor Ullman's 'The Origin of the Alphabet'; Professor Van Buren's 'The House of the Vettii', and my own 'The Academic Point-of-View'. Several members of the School have been attending Hermanin's lectures on the mediaeval churches of Rome, given under the auspices of the German Institute.

"The majority of the members of the School will go next week to Pompeii and Naples for the lectures by Professor Van Buren, after which the twelve composing the Greek party will leave for the Greek trip. I shall go to Milan on business connected with School publications and my own, and join the Naples party week after next.

"The School has been assisted by a particularly thoughtful gift on the part of Mr. Samuel Sachs, who gave, in addition to \$200 for the Music Department of the Academy, \$200 for the assistance of students of the School in their spring traveling, and \$200 for special purchases for the Library.

"The estimate of next year's publications has been prepared and sent in to the Committee on the School; it will include at least one Monograph (Professor Ullman's edition of Sicon Polenton), and a volume of Memoirs consisting of several of the papers that have been read at the Open Meetings. This will not include Miss Avery's work on the Vatican manuscripts and their miniatures, nor Mr. Taylor's article on the sarcophagus of S. Lorenzo, which he finds reason to assign to the fifteenth century although it has been classed hitherto as an Early Christian work. These two pieces of work will be published elsewhere."

To the Editor of PENCIL POINTS.

Dear Sir,

In answer to your article in Vol. VII Number 4 entitled "What do we owe each other?" I have written the following:—

Q. "What does the Architect owe his draftsman?"

(1) The Architect owes the Draftsman a good sound healthy body, a well poised mind and an appreciation of the manners, customs, and the ordinary courtesies of life.

(2) A broadminded view of religion that eliminates all prejudices but not so broad that his views of the subject are spread into mere empty forms.

(3) A good appreciation of the artistic—not so modern that it tends toward the Cubist but conservative enough to be both modern, and at the same time practical.

(4) He owes him an eight hour day with every Sunday and legal holiday off, also Saturday afternoons off and at least two weeks holiday with full pay every summer. Also no overtime work without adequate compensation. Time is Money and it is as wrong to take a man's time without pay as it is to steal money.

(5) These general statements of course apply to both Employer and Employee.

"What does the Draftsman owe to the Architect?"

(6) He should have a good knowledge of English so that the firm is not ashamed of the letter he writes. This applies alike to Architect and Draftsman.

(7) The Draftsman should be respectful towards his Employer. Courteous, but not too familiar nor like Uriah Heep.

(8) He should make it a point to be punctual unless unavoidably delayed by accident, sickness or inclement weather. He should not be too fussy about being kept five, ten or fifteen minutes overtime in the evening but should be willing to make up the time he came late in the morning, but he should not work over time as a regular thing unless he receives adequate compensation, as time is worth money and he should value his time more than money as he will only pass this way but once and cannot get the time back again however much money he might accumulate to leave behind him for somebody else to spend.

(9) He should be thoroughly acquainted with his work and if he is not familiar with certain phases of it should study to acquaint himself with the particulars in his own time under some competent teacher in some evening school or in the extension department of some recognized college.

(10) He should be industrious, patient, frugal, thrifty and truthful, economical and sympathetic, neat and tidy in his dress, up to date but not showy.

Trusting this will answer your questions.

I remain,  
Yours truly,  
RUDOLPH P. SMITH.





PENCIL SKETCH BY RALPH WARNER HAMMETT

## ATELIER HIRONS HONORS LLOYD MORGAN

A DINNER WAS GIVEN on April 5th, in honor of Lloyd Morgan, Paris Prize winner in 1920, who has recently returned from Paris. Welcome back to civilization and hard work, Lloyd. Among the notables who were present were Kenneth Reid, of PENCIL POINTS, Mr. Grunsfeld, the practicing architect, of Chicago, John Ames and Henry B. Marsh, of New York, and Richard and Robert Rowe, w. k. draftsmen and lithographers. M. Gauthier was elected toastmaster early in the festivities, by himself, there being no dissenting votes, and presided with his usual mellow humor, until subdued by a wet napkin. Each guest spoke briefly a word of welcome, and a word of introduction for the next speaker, and was seated with a round of applause and smaller ammunition. They were the finest set of after dinner speeches ever made, no one having the temerity to remain on his feet more than two minutes. Afterward the famous H. C. trio, the only three in captivity, "Big-Dick" Thomas and "Rudy" de Ghetto, Paris Prize H. C. winners in 1923 and A. "Fustonian" Euston, 1924, were heard from. Morgan then took the floor and told us in no uncertain terms what it was all about. It was noticeable that as he warmed to his subject, forcing home each point with appropriate frog-like gestures, other diners in the room hurriedly rose and left. The climax of his speech, a lurid description of the Quatz Arts Ball, was delivered to the Atelier alone, with a fringe of proprietors, waiters and dish-washers.

At the annual meeting of the Atelier the following officers were elected for 1926-27:

<i>Massier</i> .....	GEORGE W. RUSTAY
<i>Sous-Massier</i> .....	CHARLES W. BEESTON
<i>Secretary</i> .....	EARL VON STORCK
<i>Treasurer</i> .....	JOHN DE ROCCO
<i>Librarian</i> .....	HARRY SILVERMAN
<i>Chef de Couchon</i> .....	RICHARD MOORE

## "THE BOOK" OF THE BOSTON ARCHITECTURAL CLUB

THE 1925 EDITION of "The Book", featuring Spain, is a volume of great charm and value and is one of the best that the club has published. Copies may be had from Fred V. Little, *Executive Secretary*, Boston Architectural Club, 16 Somerset St., Boston, Mass., Price \$7.50 delivered.

## DETROIT ARCHITECTURAL BOWLING LEAGUE

THE DETROIT ARCHITECTURAL BOWLING LEAGUE finished its fourth season on April 2nd with the following standings:

Team	W	L
Albert Kahn .....	52	29
Smith, Hinchman & Grylls .....	50	31
Geo. D. Mason & Co. ....	48	33
Janke, Venman & Krecke .....	47	34
Donaldson & Meier .....	45	36
McGrath, Dohmen & Page .....	44	37
Malcomson & Higginbotham .....	38	43
Van Leyen, Schilling & Keough .....	29	52
Weston & Ellington .....	27	54
Simmers & Waalkes .....	25	56

## Season's Records

Individual High Score		
1 game —Kalsched, (A. K.)		267
3 games —Jolson, (A. K.)		649
Team High Score		
1 game —McGrath, Dohmen & Page		995
3 games —McGrath, Dohmen & Page		2796

The annual banquet was held April 21st at the Book-Cadillac Hotel. A large crowd attended and a big time was had.

## A CORRECTION

WE WISH TO POINT out to our readers an error in the captions on our colored lithograph plates in the April issue of PENCIL POINTS. Where the second line in both instances read "Drawn on 3 zinc line plates" it should have read "Drawn on 3 zinc plates". This correction is made to avoid confusing the thin zinc plates used by lithographers with the zinc line engravings made by photo-engravers.

Mr. Guptill's book, SKETCHING AND RENDERING IN PENCIL, should be in the hands of every Pencil Pointer. Price \$5.00. Sent on approval? Oh! yes indeed. And Brother Guptill is now doing a book on rendering in ink. It will probably be published sometime in the fall. Announcement later.—(adv.)



## PENCIL POINTS

### ST. LOUIS ARCHITECTURAL CLUB

AT THE ANNUAL MEETING of the St. Louis Architectural Club, held at the clubhouse, 514 Culver Way, the following officers were elected: President, Alfred H. Norrish; first vice-president, Charles M. Gray; second vice-president, Walter Rubin; secretary, Edward Bruggeman; treasurer, Clarke F. Sanford; associate members of the Executive Board, Carl J. Trebus, Allan W. Gordon, and trustee, Angelo Corrubia.

Other trustees whose terms have not as yet expired are: Louis La Beaume and E. C. Klipstein. A meeting of the stockholders of the club property preceded the regular meeting of the club, and the following trustees of the building trust fund were re-elected for a three-year period: H. H. Lynch, Carl J. Trebus and Herman Frauenfelder.

### PRATT ARCHITECTURAL CLUB

THE PRATT ARCHITECTURAL CLUB is now a permanent organization, enthusiastic, robust and throbbing with life. The dinner on April 7th was a tremendous success, 90 men attending and all enjoying themselves greatly. A Constitution and By-Laws were adopted and papers of Incorporation taken out. Officers were elected as follows: Pres. Eric S. Anderson 08; Sr. V. Pres. H. D. Vernam 03; Jr. V. Pres. Philip G. Knobloch 12; Treas. A. D. Cole 19; Sec. Harlow C. Jones 09; Asst. Sec. W. J. Cooper 23; Asst. Treas. L. F. Boulware 24. Bd. of Governors: Warren E. Green 97; A. F. Edwards 09; E. W. Higgs 10; L. B. Pope 07; A. S. Flinch 13; William H. Gompert 92; J. A. Maycock 16; W. M. Gray 11; and D. O. Larsen 12. This is our start, and all Pratt Architects are eligible and wanted. We will soon mail full information to the men on our list. If you are not on the list, get on. Write to the Club c/o the Fraternity Clubs Building, 22 E 38 St. N. Y. City.

### THE COLUMBIA ATELIER

THE COLUMBIA ATELIER is now nearing the end of the Spring Term and a cooperative Atelier spirit between the Class "A" and "B" members has prevailed throughout the year. Much has been accomplished not only in the way of work but also along the line of entertainments and our program has been well balanced with banquets, dances and theatre parties.

C. H. Jagemann was reelected Massier and H. F. Bossert elected Sous Massier. The active members for the year number 50.

Our critics for the year have been as follows: Mr. John V. Van Pelt, (Patron), Mr. Harvey W. Corbett, Mr. Wm. T. Armstrong, Mr. A. E. Flanagan, Mr. John G. Schuhmann and Mr. Geo. A. Licht, (Mr. Licht has very kindly consented to act in the capacity of Mr. Van Pelt during the latter's trip abroad).

A hearty welcome is extended to any who desire to see our Atelier, (one of the largest in the east), which is located in Avery Hall, Columbia University.

H. F. BOSSERT, *Sous Massier*.

### RALPH WARNER HAMMETT EXHIBITS SKETCHES

RALPH WARNER HAMMETT, holder of the Nelson Robinson Travelling Fellowship in 1924, recently exhibited some of his pencil drawings and water colors made during his travels on this Fellowship in the Hall of Casts at Robinson Hall, Harvard University. Mr. Hammett was a graduate in Architecture from the University of Minnesota and in 1923 received the degree of Master in Architecture from Harvard. The exhibition covered a wide range of subjects. We reproduce on this, and the opposite page, two of Mr. Hammett's drawings.



PENCIL SKETCH BY RALPH WARNER HAMMETT



## PENCIL POINTS

THE NEW YORK ARCHITECTURAL CLUB, INC.  
WE ADMIT THAT we were just a little bit too optimistic when we declared in the April number that our Club and Atelier quarters would be completely installed and functioning at the time of issue.

Unforeseen difficulties have come up since, which, while not serious enough to obstruct the mapped-out program, proved merely annoying in that they retarded the completion of the job on schedule. Therefore we were only partly right in our prediction, and we humbly apologize to all those of our friends who have suffered the least bit of annoyance or inconvenience due to our rashness. We hope there weren't many.

We concentrated our activity mainly on the completion of the Atelier portion of the Club, in order to give the boys who were anxious to start work a chance to do so. The result is that we have quite a number of students very busily and enthusiastically engaged in working out their Esquisses right now, while the finishing touches are being put to the entire premises. The present problem is the last before the Summer problem is given out by the Beaux Arts Institute. For working out this problem practically the entire Summer is allowed. At this time perhaps it will be well to bring to the attention of those who have signified their intention of joining the Atelier, as well as those who are contemplating making their application, that whereas we have a list of applicants almost twice as long as the actual capacity of the Atelier, only those will be taken in who show sufficient good faith to make their payments of dues *promptly*. It should be obvious that sound and efficient management of the Atelier can only be carried out in that way. On that basis the Atelier membership is being filled, and at this writing it is about half completed. Possibly there is a tendency among some of the applicants to lag behind during the Summer and to join in the Fall season. It is to just those that we want to point out that the capacity will be filled long before Fall, at which time they will have discovered that they have lived up to the old saying of having been "penny wise and pound foolish". Besides, the various activities indulged in by the Atelier members all Summer make it more than worth while to "be in". *Right here we wish to state most emphatically that this is not to be considered by prospective applicants to be a drive for Atelier members.* Membership in any good Atelier, and this one in particular, is a privilege sought by the applicants, and this notice is intended merely as a reminder that the longer you put it off the harder you will find it to get in. As to the dues, since many have stated that the payment requirements as laid down by the Atelier Committee were too high, the committee has reconsidered, and fixed the dues at \$5 per month payable in advance. For the time being there will be no Atelier initiation fee other than that the applicant must be a member in good standing of the New York Architectural Club.

The work on the club rooms is going along fairly well, and is now about 75% completed, so that a very good idea can now be had as to how it will look when it is finished. The location being so handy, very many of our members drop in at lunch time to see the progress being made, and already at this stage of the game, it is getting difficult to make them leave the premises. In the near future we hope to have some interior views reproduced, along with a list of those who are helping to make this an accomplished fact.

On Tuesday April 13th, the General Meeting was held in the club rooms, when the seven members were elected to fill the vacancies on the Board of Directors of 21, of those whose term expired. The following were elected to the Board for 3 years, Messrs. Chas. Mink, Edw. Weck, A. F. Bernhard, W. E. Herrick, A. Harrer, E. D. Thomas, and C. E. Dewey.

On Wednesday April 21st, the Board of Directors held

the election of Executive Officers for this year, with the following results:

President: Geo. A. Flanagan  
1st V. P.: E. L. Capel  
2nd V. P.: N. T. Valentine  
3rd V. P.: J. H. O'Brien  
4th V. P.: C. L. Elliott  
5th V. P.: C. Mink  
Treasurer: A. F. Bernhard  
Fin. Sec.: L. H. Smith  
Recording Sec.: J. C. Marsh  
Corres. Sec.: Henry Sasch  
Sgt.-at-Arms: W. E. Herrick

### BOWLING LEAGUE DIVISION

THE ARCHITECTURAL BOWLING LEAGUE is now nearing the end of its season, in finishing up with the 3 man tournament.

The standing of the teams up to and including Apr. 8 is:

	Office of	W.	L.
1.	W. H. Gompert .....	8	1
2.	Donn Barber .....	13	2
3.	Cass Gilbert .....	7	2
4.	Warren & Wetmore .....	11	3
5.	McKenzie, Voorhees & Gmelin .....	10	4
6.	Starrett & Van Vleck .....	6	4
7.	Holmes & Winslow .....	9	6
8.	J. G. Rogers .....	6	4
9.	A. J. Thomas .....	9	6
10.	Peabody, Wilson & Brown .....	8	7
11.	J. E. R. Carpenter .....	5	5
12.	Schwartz & Gross .....	4	5
13.	A. C. Bossom .....	4	5
14.	McKim, Mead & White .....	6	8
15.	T. W. Lamb .....	6	8
16.	Guilbert & Betelle .....	4	6
17.	B. W. Morris .....	2	8
18.	Team withdrawn .....	—	—
19.	Team withdrawn .....	—	—
20.	Team withdrawn .....	—	—

High team score to date, Office of McKenzie, Voorhees & Gmelin,—601.

High individual score to date, Chas. Ackerman,—257.

The tournament will end on April 29th, following which the big jamboree of the season will be held by the A.B.L., the Annual Dinner, when the various and ever increasing trophies, medals and banners will be presented to the winners, (to the tune of Auld Lang Syne and grape juice—maybe).

In a way we regret that the bowling season ends so soon, as we've had seven Snikerton detectives out looking for the Amateur Bowling League, for whom we were cooking up a very snappy challenge to bowl, provided that when located they would be far enough away from here. But alas.

### BASE-BALL

The "Architectural All-Star Base-Ball Team" of this club is booking games for this season, to be played during week-ends, and it is interesting to note that among the very first booking are two games with the exceptionally strong team in Sing-Sing Prison. Our team has crossed bats with this team in the past two or three years, and we again look forward to some fast ball playing. Any near-by teams that may be interested in a tussel, might be able to arrange it with our friend and fellow citizen, Mr. M. L. J. Scheffer, c/o Starrett & Van Vleck, 393 Seventh Ave., N. Y. C., who is performing the John McGraw services for our side.

HENRY SASCH, Secretary,  
c/o Donn Barber,  
101 Park Ave., N. Y. C.





OVER-MANTEL DECORATION FOR A SEASHORE HOME IN MASSACHUSETTS BY FRANK F. FREDERICK.

## PERSONALS

EDWARD SCHOEPE, ARCHITECT, has removed his offices to 1437 Spruce Street, Philadelphia, Pa.

LOUIS LEVINE, ARCHITECT, has removed his office to the Roosevelt Square Building, Mount Vernon, N. Y.

ASMUS AND CLARK, ARCHITECTS, have removed their offices to 1415-18 Nashville Trust Bldg., Nashville, Tenn.

HARRY BENNETT has opened an office for the practice of architecture at 1 Masonic Temple Building, Lake Worth, Florida.

CHAS. W. DAWSON, ARCHITECT, has removed his offices to 1206 West Broadway, Muskogee, Okla.

F. EUGENE BARTON, ARCHITECT, has opened an office at 907 Crocker Building, San Francisco, Cal.

WESTON AND WESTON, ARCHITECTS, have removed their offices to 1610 Cosmo Street, Hollywood, Cal.

HELEN BAXTER PERRIN AND ELIZABETH COPE AUB are making architectural models at 100 Charles St., Boston, Mass.

H. I. FELDMAN, ARCHITECT, has removed his offices to 415 Lexington Avenue, New York.

CHARLES H. CONRAD, ARCHITECT, AND GEORGE BAIN CUMMINGS, ARCHITECT, have consolidated their offices under the name of Conrad & Cummings, Associated Architects, 507 Phelps Building, Binghamton, N. Y. The firm of Cummings & Starbuck, Architects, has been dissolved by mutual consent. Fred L. Starbuck will continue the practice of architecture in Miami, Fla.

HAROLD JEWETT COOK, ARCHITECT, has removed his offices to 438 Delaware Avenue, Buffalo, N. Y.

R. H. HITCHINS, ARCHITECT, has moved his offices to 41 Liberty Trust Building, Cumberland, Md., and would like to receive manufacturers' catalogues and samples.

JOSEPH IMPELLITIER, ARCHITECT, has removed his offices to 62 Day's Park, Buffalo, N. Y.

OBADIAH BASS AND FLOURNOY G. HAGAN have formed a partnership for the practice of architecture under the firm name of Bass & Hagan, with offices in the Still Building, Lexington, Ky.

EDWARD H. DAVIS AND GEORGE M. D. LEWIS, ARCHITECTS, have removed their offices to Board of Trade Building, Scranton, Pa.

JOHN M. LIPTAK, formerly with Shape, Bready & Peterkin, has opened an office for the practice of architecture at 366 Madison Avenue, New York.

D. LEONARD HALPER, ARCHITECT, LEE PERRY, ASSOCIATE, have opened offices at 310 Realty Board Bldg., Miami, Fla., and would like to receive manufacturers' catalogues and samples.

DAVID J. COHAN, ARCHITECT, has removed his office to 47 West 42nd St., New York.

M. C. KLEUSER, ARCHITECT, has opened an office for the practice of architecture at 509 Republic Bank Bldg., Dallas, Texas, and wishes manufacturers' catalogues and samples.

## ADDRESSES WANTED

Anyone knowing the correct address of the following will confer a favor by sending them to this office, Pencil Points Press, Inc., 19 East 24th Street, New York City.

ALABAMA—James A. Stripling, Auburn.

CALIFORNIA—A. D. Baker, Emery Hirschman, J. V. Mackay, Henry F. Starbuck and Douglas Tuck, Los Angeles; W. L. Harrison, Oakland; E. N. Arnold, B. Stoton, Redondo Beach.

FLORIDA—W. F. Hampton and James H. Randolph, Gainesville; E. J. O'Callaghan, Hialeah; T. L. Bush and Louis Sigloch, Jr., Miami; Reginald F. Hird, West Palm Beach.

GEORGIA—L. C. Prichard, Atlanta.

ILLINOIS—Edward J. Thomas, Berwin; Graham E. Park, Champaign; D. D. Ehresman, Harry R. Ladehoff, T. Rissman, Hillard R. Russell, R. L. Saylor and J. Wm. Sievert, Chicago; E. H. Mittelbush, Evanston.

INDIANA—E. Hill Turnock, Elkhart; Joseph P. Leach, Jr., Michigan City.

KENTUCKY—Angelo Rich, Harrison.

MICHIGAN—John H. Barry, Ann Arbor; C. Donkervoet, R. G. Nairn and Henry Peebles, Detroit; A. D. Badour, St. Joseph.

MISSOURI—Wm. Tilden, Sedalia.

NEBRASKA—A. W. Atkins, Lincoln.

NEW YORK—Paul L. Dubois, Jr., Brooklyn; D. K. Kurita, Ithaca; G. Vance Temple, Jamaica, L. I.; E. Augustus Acker, Will G. Norris, Jesse L. Orrick and Carl Psentie, New York City; J. C. Byers, Pelham Manor.

OHIO—Paul Gasser, Cincinnati; Kenneth Paulsen, Columbus; Walter Knapp, Mentor.

OKLAHOMA—Lavone Eilerts, Stillwater; Alfred C. Fabry, Tulsa.

OREGON—Hal F. Voight, Jr., Vernonia.

PENNSYLVANIA—William M. Burke, Drexel Hill; Charles F. Schaefer, Philadelphia; Edmund Poggi, Wilkes-Barre.

TENNESSEE—H. H. Wright, Knoxville.

TEXAS—Raymond L. Wofford, College Station; Wilford S. Bogue, Fort Worth; Sol R. Slaughter, Houston.

WASHINGTON—Juan D. Auginaldo and John I. Mattson, Seattle.

CANADA—A. H. Barber, Toronto.

## CHANGE OF ADDRESS. (SEE DETAILS)

FROM—

TO



MELVIN C HOBSON



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

STRANGE HOW THINGS SHIFT about from month to month isn't it? Or isn't it? By which we mean that a while ago nobody sent us anything but sketches. We noted this fact and called loudly for verse which we had in abundant supply for a couple of months, during which period sketches almost disappeared from the map. But this month the grand old army of sketchers has come to the front and center, whereas the versifiers have thrown us down flat. This may be just as well as we have had several comments to the general effect that our contributors know far, far more about architecture than about writing poetry!

The prizes this month go as follows:

- Class 1—Carl Jensen
- Class 2—No award
- Class 3—Anonymous New Zealander
- Class 4—W. Honack

We used to run a department in this paper called "Queries and Answers", and have had several letters asking us to revive this feature. What do you say about it? We should be glad to receive expressions of opinion, also any questions having to do with the PENCIL POINTS' field in any of its aspects. If you are seeking a bit of information, either directly or remotely connected with drafting room technique, or practice, or anything pertaining to the practice of architecture, just fire it at us and we will see what can be done about it. For some years past we have been answering by individual letter all such inquiries, but it seems to us that both the question and answer in many cases would be interesting to quite a group of our readers, and that they might just as well, if not better, be published for the benefit of all and sundry.

## HE'S JUST A LITTLE FELLOW

(Submitted in March Competition, therefore not eligible for this month's prize)

He's just a little fellow  
With his bare feet of tan;  
He runs around the back-yard,  
And likes to play in sand.  
He shapes his toad-frog houses  
And moulds his pies and cakes;  
But always when he finishes,  
He tears down what he makes.

If you leave the front door open  
Or forget to bolt the lock  
He'll see that you're not watching  
And run at least a block.  
He'll stomp his toes quite often,  
And scratch his feet with briars;  
But you can't stop him from going,  
For he hardly ever tires.

He's just a little fellow  
With his bare feet of tan;  
Today he's in his rompers,  
Tomorrow he'll be a man.  
All the building contracts,  
He'll be sure to land  
For he has had his practice,  
With buildings in the sand.

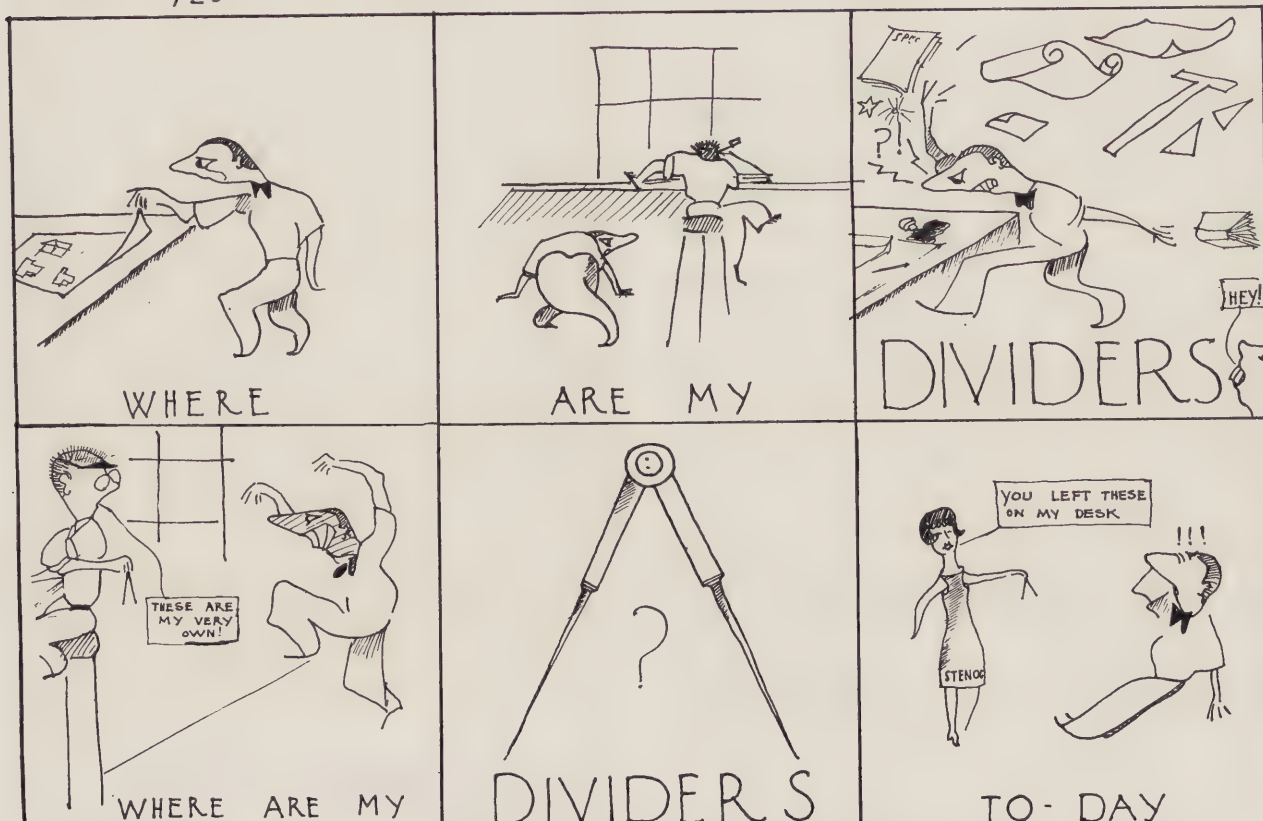
William Lawrence Wilson

YES

WE

HAVE

NO!



SUBMITTED BY AN ANONYMOUS NEW ZEALANDER  
(PRIZE—Class Three—April Competition)



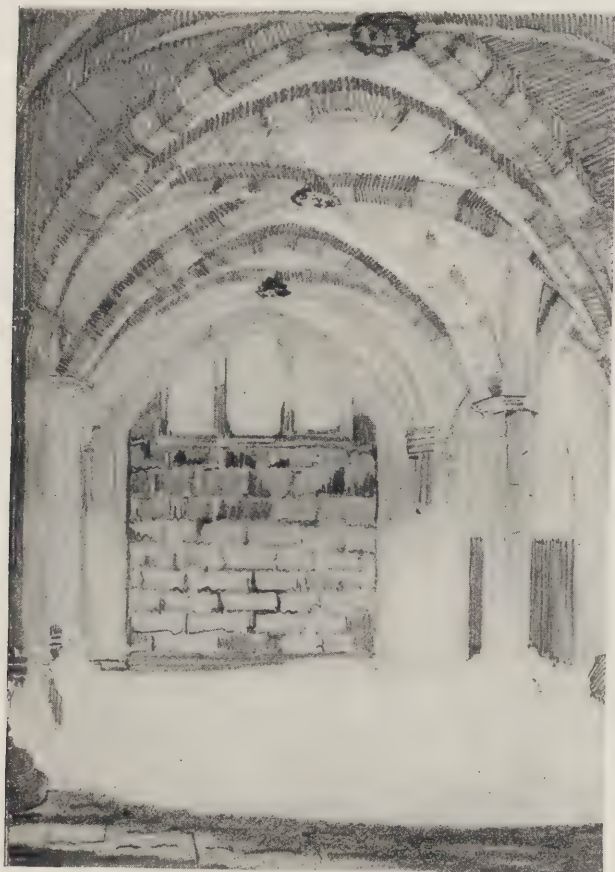
HERE AND THERE AND THIS AND THAT



SKETCH BY ROBERT MOSLEY WILLIAMS  
PASADENA, CAL.



SKETCH BY CARL JENSEN  
(PRIZE—Class One—April Competition)



PENCIL SKETCH BY H. A. THOMAS  
THE CRYPT, HEREFORD CATHEDRAL



WATER COLOR AND FOUNTAIN PEN SKETCH  
BY CHARLES H. VOORHEIS



# PENCIL POINTS



PENCIL AND CRAYON RENDERING BY ROBERT MOSLEY WILLIAMS



The owl has always had the reputation of being a wise bird. This reputation has been preserved, not to say augmented, by that now famous representative of the owl family who made an informal call upon Mr. Calvin Coolidge the other night. Lots of other birds have tried to see the President with conspicuous lack of success, but this wise old owl just flew right in, evidently to learn from a master the last word in the technique of silence.



PEN AND INK DRAWINGS BY W. HONACK  
(PRIZE—Class Four—April Competition)



## HERE AND THERE AND THIS AND THAT



DONALD



JANE



EDWARD

### THESE CHILDREN NEED HOMES

WHAT FOLLOWS HERE has nothing whatever to do with architecture, but I am proceeding on the theory that the readers of *PENCIL POINTS* are just as much interested in human affairs as is any other group of the same size to be found anywhere.

Here are the pictures of three children who are now under the guardianship of the State Charities Aid Association of New York, a private organization. Were it not for this organization these children would remain wards of the State instead of becoming members of a family.

Now let's consider these three children.

Donald is an orphan, fifteen years old, born of all American parents. He is strong and sturdy, in good health; has brown hair and eyes. He is well brought up and fond of reading, has an inclination toward boyscouting, and likes the out-doors. A good home would do him a lot of good and he might reasonably be expected to repay his foster parents by making a real place for himself in the family with all that that implies, and developing into a fine man.

Jane and Edward are brother and sister, half orphans; mother, English; father, American. Jane is eleven years old, has a sweet disposition, is well brought up, stands well in school and is fond of music; has brown hair and blue eyes. She is a very nice little girl. Edward is fifteen, intelligent, self-reliant and has plenty of initiative, somewhat mischievous—what real boy is not? He is popular with other boys, studious, is in good health, and has the same coloring as his sister. Jane and Edward should not be separated.

Anyone interested in considering the adoption of these children can secure full information regarding them by addressing Miss Sophie Van S. Theis, The State Charities Aid Association, 22nd Street and Fourth Avenue, New York.

### COPIES OF PENCIL POINTS

#### WANTED AND FOR SALE

Mr. C. A. Herman, P. O. Box 2241, St. Petersburg, Florida, wants 1921 January, February, March, April, May, December. 1922 January.

Mr. V. L. Annis, Assistant-Professor, Oklahoma Agricultural & Mechanical College, Stillwater, Oklahoma, wants complete volumes of *PENCIL POINTS* (bound or unbound) to put in the Architectural Department Library of this college.

R. K. Posey, Box 1297, Auburn, Alabama, wants January and April 1925. These two copies are needed to replace missing issues in the Architectural Library of the Alabama Polytechnic Institute.

Societe Centrale D'Architecture De Belgique, Hotel Ravenstein, Rue Ravenstein, 3, Bruxelles, Belgium, is very anxious to secure the following copies of *PENCIL POINTS*: 1920 August, September, October, November, December. 1922 January.

Mr. W. Forrest Alston, 1515 West 8th Street, Los Angeles, Cal., will buy a copy of the December 1925 issue of *PENCIL POINTS*.

Mr. S. M. Houkom, 309 1-2 Broadway, Fargo, N. D., wants a copy of the issue of August 1920. He is willing to pay fifty cents for it or exchange it for any three of the extra copies he has and which are listed below. He will sell for twenty-five cents each, 1921, February, March, May, July, August, September, October, November, December. 1922, June, July, August, September, October.

Mr. Harry E. Mead, 3238 Virginia Pk., Detroit, Mich., will sell, 1923: January, February, March, April, May, June. 1922: January, February, March, June, July, August, September, October, November, December. 1921: May, June, July, August, September, October, November. 1920: June, December.

Mrs. Ernest Mortimer, 400 Canner Street, New Haven, Conn., will sell, 1921, October, November, December. 1922, January, February, April, May, Aug., Sept., Oct., Dec. 1923, Jan., Feb., March, May, July, Aug., Sept., Dec. 1924, Jan., Feb., March, April, June, July, August, Sept., December. 1925, Jan., Feb., March, April, June, July, October. 1926, Jan., Feb., March.

Living-Stone Company, One East Lee Street, Baltimore, Md., will sell, 1920: June. 1922: March, April, August, September. 1923: Complete, also extra copies of May and October. 1924: Complete, also extra copies of Jan., May and July. 1925: Complete.

Mr. A. Wetter, 4038 N. Keystone Avenue, Chicago, Ill., will sell at twenty-five cents a copy 1924 and 1925 issues of *PENCIL POINTS*, all in first-class condition.

We are very anxious to secure copies of the July and August 1920 issues of *PENCIL POINTS* for one of our Australian subscribers. If you can supply these numbers please communicate with Mr. W. V. Montgomery, c/o The Pencil Points Press, Inc., 19 East 24th Street, New York City.



# THE SPECIFICATION DESK

*A Department for the Specification Writer*

## SPECIFICATIONS

By W. W. BEACH

### HEATING AND VENTILATING, PART XIX

THE CHAPTER ON PAINTING AND GLAZING IN PENCIL POINTS for April completed our general contract specifications for a consolidated district school building. There remain the divisions of Heating, Plumbing and Electric Work.

The frequent combination by engineers of steam heating and ventilating into a single contract appears inadvisable in the smaller cities, where few steam-fitting shops are equipped to do sheet metal work. When the two trades are, therefore, so combined, it means that the steam contractor will "sub" the duct work and add his profit for so doing—perhaps thus making his figure so high as to let in the big outsider who "does his own" sheet metal work.

On the other hand, there appears to be no good reason against including ducts with other sheet metal work, thus making it a worth-while job and, at the same time, insuring against there being two sheet metal concerns on the job and the possibility of resultant friction. We prefer this latter method and the duct work will therefore be found in the Sheet Metal Division.

When setting about the design of a steam heating system it is up to the architect to determine among other things:—

1. Whether the building is to be heated by the fan ventilating system or if a "split" system will be installed, using direct radiation for heating, the fan to supply only the fresh air requirements.
2. If direct radiation is used, whether the return shall be by gravity, by air line or by vacuum pump.
3. Whether or not automatic heat regulation is to be installed.
4. What kind of boilers are to be used.
5. Whether or not air washers or humidifiers are to be used.

Discussing the first of the foregoing, it is difficult to understand why some architects and engineers continue to ignore the split system in their designing in the face of the following advantages:—

- a. The initial cost of a split system is only about 60 to 70 per cent of that of a complete fan system. This may mean a saving of anywhere from four to six per cent of the cost of the building.
- b. The operating cost of a split system can be estimated at from 65 to 75 per cent of that of a complete fan system.
- c. Direct radiation, located under or close to windows on outside walls, is 100 per cent more efficient in heating rooms on the windward side in extreme weather.
- d. Part of the economy in a split system lies in one's ability to use low pressure boilers, thus cutting down on equipment, flue size and height, boiler size, coal storage, etc. and doing away with the need of employing a high-priced steam operating engineer.
- e. When fans are used for providing fresh air only, the air emerges from the heaters at a temperature not above 90°, in order to reach the rooms at an average of 70°. At the former temperature (which is unnecessarily high), the air will not lose much of its moist content, while, if heated to 120° or more, as is requisite for warming the building, the air becomes so dry as to necessitate its being artificially humidified in order to be wholesome.
- f. If all heat is supplied by means of fans, a break-down means a shut-down; whereas, if fans are only for the providing of fresh air, their cessation means a reversion to the primitive—the unventilated, or direct window-and-door method.

As a matter of fact, there is much of piffle in the fine-haired ventilating engineering applied to our public schools. It is not unusual to see such a system of the first class installed in an up-to-date school in a city or town—and the fan omitted as a matter of economy; or, if included, left quiescent most of the time "to save the juice". The writer inspected one such, the product of the best in our profession, and found all the register openings closed with wall-board.

A recent press report mentioned a conclusion reached by certain educators to the effect that mechanical ventilation of schools is quite unnecessary; just as wrong a theory in the opposite direction as is the expenditure of too much on an elaborate system which is fore-doomed because of its very complexity. Of no avail are deflectors, volume dampers and the like, either controlled mechanically or by hand. There are too many adverse conditions. The system is too far from fool-proof.

Why go to either extreme when moderation is (as usual) the most to be desired from every standpoint?

Ideal ventilation means the supply of fresh air (and the removal of foul) in such quantity to each individual as will most nearly approximate what he could get out-of-doors under most favorable conditions. Certainly this does not imply heating it.

Obviously, therefore, the only reason for heating a fresh air supply is that it may be conducted into a room (and an equal amount of used air forced out) in such manner that no individual will be conscious of draft or of variation of temperature.

With but a few persons in a room, such change is effected naturally and nothing artificial is called for. As the number of occupants increases, the natural air supply through walls and crevices becomes inadequate. This point is soon reached in class rooms, with the infrequent opening of doors. Then the theoretical 30 cubic feet per minute demanded by each human cannot be had without superinducement.

If we seek to supply it by means of air shafts dependent upon gravity for draft, we fail, even though we stimulate that draft by means of artificial heat directly applied.

One of our western States, in prescribing ventilation for public schools, expressly permits "gravity ventilation", provided it produces certain definite air changes,—a quite impossible proviso. At time of low barometer, the back-pressure in such vent flues may be so great as to entirely stop the outflow, or even to produce a back-draft. Prevailing winds exert a pronounced influence on gravity systems. No gravity system is therefore worthy of consideration for schools and we are, in consequence, compelled to have recourse to forced draft. (The State mentioned as legally permitting gravity ventilation possesses no "machinery" for compelling the operation of any ventilating system, after its installation, hence the mistaken economy of certain school boards there resident.)

Since we must have a fan system, let it then be the simplest possible and let the heaters do as little damage to the fresh air as may be.

In the first place, let us properly locate our fresh air intake. This should be as high as possible above the ground, and sheltered from winds as much as can be. A side-wall opening is better than one on the roof, as the dust from the latter may be just as objectionable as if from the ground.

One then readily computes his requisite air quantities and duct cross-sections, and figures on enough fan and heater capacity to bring the supply up to 80° in coldest winter weather. Loss of heat in ducts need not be figured high,



## PENCIL POINTS

unless they are in or against outside walls—which they should not be. It is better to have the fresh air enter the rooms at 60° or 65° than that it should be over-heated.

For a school on a large lot in town or country, no air treatment (other than heating) is necessary, but provision should be made for adequate filtering through muslin to remove all dust, and the muslin should be easily replaceable.

Now one proceeds to design his steam heating layout according to Carpenter's or other accepted formula, any of which may be treated rather liberally. There is at least 25 per cent of leeway between too much and too little radiation, hence surely one cannot readily go wrong with such computations. Moreover, it is customary for the architect or engineer to require of the contractor that he shall guarantee that the heating system which he installs shall do what is expected of it.

On the face of it, this appears as if the owner's representative was dodging his proper responsibility by making the contractor liable for the correct design of the plant. To a degree, this is true. But the architect began foregoing his responsibilities when he first started having others do the actual construction of buildings and thereafter confined his activities to the less arduous (and less remunerative) but more dignified (?) duties incidental to design and supervision. But the owner is really better served by reason of the contractor's guaranty on heating, hence its justification. The owner benefits by the contractor's check on the architect's design (architects *have* been known to err) and by getting the assistance of the architect, if necessary, in securing the correction of an improper installation, and direct from the individual who is equipped to make such correction. If the architect were alone held responsible, it might be a much less simple matter for the owner to get what he wanted. The architect can nearly always allege that he left something out for the benefit of the owner, in the interest of economy. If judgment is at fault and the thing is needed, let the owner therefore proceed to put it in and pay for it.

This is sound logic and quite justifies the custom of making the contractor responsible. We are saying nothing as to whether or not the contractor is generally in better financial position to be compelled to make good, though it is possible. And we most distinctly do not approve of the custom (we are told it amounts to a custom with some "architects") of permitting a contractor to design the system in the first place, even write the specifications for the architect to copy and autograph.

If one is seeking economy of design, as should be the case in school work, he had best be most careful as to whom the mechanical engineering is entrusted. It is easy to be wasteful. For instance, in arbitrarily determining how many air changes per hour one should allow in the design of his direct radiation, it is well to remember that the fan can take care of the air changes, hence one an hour is all that need be cared for by the radiators.

Further assistance from the fan is to be had before and after school hours, at which times the fresh air intake can be closed, the recirculating damper opened and the building temperature quickly boosted.

The simplest recirculating system is effected when the used air from all rooms (except toilet, chemistry, cooking and other odorous rooms) is conducted to an open attic or roof space, from which a direct connection can be had into the fresh air intake. Or, if such connection is not feasible, the door to attic stairs can be opened for recirculating, the air being allowed to find its way down stairs to an opening to the fan intake at any convenient location.

The scheme of using the roof space as a part of the foul-air duct system is possessed of several advantages. It eliminates (saves the expense of) considerable duct work and it warms the air under the roof, thus acting as an insulation for the suspended ceiling of the upper story. This saves 25 to 40 per cent direct radiation in that story.

So, having reduced our heating and ventilating arrangements to their simplest possible terms and having already provided duct work in our sheet metal contract, we may proceed with our specifications for steam fitting and boilers. Items 2 and 3 in our list of features to be decided (steam return and heat regulation) can be bid upon as extras, inasmuch as their installation must be governed by manufacturers' specifications calling for patented equipment.

As to boilers, one must determine if he prefers cast iron or steel, brick-set or not, and to what extent he will go in

providing for smoke consumption, automatic stoking and ash removal. It is fairly safe to assume that the two last-named conveniences are only warranted in the largest plants. We ignore them in this specification and we provide two cast iron boilers, thus saving depth in our basement and keeping the floor above the level of ground-water.

### DIVISION O. STEAM HEATING

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of and apply in full force to these Specifications for Steam Heating. The Contractor shall refer thereto as forming integral parts of his Contract.

#### ARTICLE 1. *Work Included.*

##### (A) THE ITEMS under this Division include:

- (1) STEAM BOILERS and their Setting.
- (2) ALL STEAM PIPING, Mains and Returns.
- (3) ALL PIPE AND BOILER COVERING.
- (4) ALL STEAM VALVES of every Description.
- (5) ALL RADIATION, Direct and Indirect.
- (6) ALL VENTILATING FANS and their Housing and Motors, ready for Electric Connections.
- (7) SUCH OTHER WORK as is Herein Set Forth.

##### (B) OMISSIONS. The following items are not included in this Division:

- (1) VENTILATING AND FRESH-AIR DUCTS.
- (2) RETURN PUMPS, unless specifically stated in Contract.
- (3) PAINTING, except as directly called for.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings of this Article, there is given, for convenience of Contractors, a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications, beginning with Art. 3.

(A) PIPING SYSTEM. The heating apparatus shall be erected according to the overhead single-pipe method of steam heating, the steam to circulate under a pressure never exceeding five pounds to the square inch at the boilers, conveyed to heating surfaces by a system of piping so erected that all water of condensation in the system shall be freely returned to boilers by gravity alone.

(B) ALTERNATIVE BID ON TWO-PIPE SYSTEM. Each Bidder is invited to state in his bid the amount to be added to same in case the system is made a two-pipe system in place of the one-pipe gravity system above specified. Complete specifications shall accompany such bid covering all differences between such system and the one originally intended. Alternatives on vacuum and air pump return systems are particularly requested. Such systems may contemplate reductions in main pipe sizes but no reductions of boiler and radiator sizes will be considered. Such alternative installation, if made part of this contract, will be subject to the same General Conditions and the same Guaranty as are herein set forth.

(C) BOILERS shall be provided in place, including all equipment, connections, covering and fire-tools essential to their proper operation and care.

(D) PIPING shall be complete in every particular in accordance with the Contractor's piping plans which shall be submitted for approval as specified for other shop drawings. All valves and connections shall be included, as called for.

(E) RADIATION, both direct and indirect, together with all valves, connections, feet, brackets or other supporting members shall be provided for all locations specified.

(F) COVERING shall be provided for certain piping as specified.

(G) FANS shall be provided complete, on proper foundations, equipped with housing and motors, ready for electric connections, in accordance with approved shop drawings, to be submitted as specified under General Conditions.

(H) TEMPORARY HEAT. As soon as possible, after steam piping is in place, this Contractor shall install radiators sufficient for temporary heating and shall put heating system in shape to afford use of same to the General Contractor



## PENCIL POINTS

who will then be permitted to operate same. No charge will be permitted for such use of the system, but the General Contractor will be held responsible for all damage due to such usage or he may make such provision for the Heating Contractor to operate the system in his stead as is mutually acceptable to both and to the Architect. It is understood that such heating is to be made available also for all others having work in the building, at all times when the temperature outside the building at 9 a. m. is below 50° F. The Heating Contractor shall, as part of this contract, reset all radiators after finished floors are laid and painting is done.

(I) HEAT REGULATION. Each Bidder is requested to state in his bid the amount to be added to same in case an approved standard system of automatic heat regulation is included in the contract. Maker's specifications and diagrams covering a complete installation for this building must accompany such alternative figure, in order to receive consideration.

### ARTICLE 4. Steam Generators.

(A) TYPE AND CAPACITY. The steam shall be generated by two X Y Z smokeless cast iron sectional boilers (or approved equal), made by the X Y Z Co., with a combined capacity of 16,000 sq. ft. of radiation, actual measurement. The boilers shall be properly installed in locations shown, on concrete floor provided under another Division.

(B) CONNECTIONS. A 1" feed-water supply will be brought into boiler room within 20' of boiler connections, under another Division. This Contractor shall make proper 1" connection to same, with separate control by compression cock, conveniently located, for each boiler. Boilers shall be so inter-connected, and steam mains and valves so arranged that both boilers can be used at same time or either can be cut off and the other used independently.

(C) BREECHING. The Contractor shall properly connect boilers with smoke flue by means of gas-tight breeching-pipe of ample size, built of No. 12 gage black iron, in which shall be placed a shut-off damper with wood operating wheel, for each boiler, together with proper cleanout doors, with approved heavy hinges and latches. Breeching shall be neatly covered with a double-thickness of 9-lb. asbestos paper.

(D) FIXTURES, FIRE TOOLS AND TRIMMINGS. Boilers shall be provided with all necessary fire and cleanout tools to care for same, which shall include for each boiler: one poker, hoe, slice-bar, flue-cleaner and rod. Each boiler shall also be provided with one 5" brass-bound, low-pressure X Y Z steam gage; one safety-valve with 10-lb. weight; one water-column with  $\frac{3}{4}$ " connections and cut-off cocks and two  $\frac{3}{8}$ " brass try-cocks; one Scotch gage-glass with 4 brass guard-rods; one  $\frac{3}{4}$ " brass-stem blow-off cock, which latter shall be set at such point as to drain the boiler and all pipes and radiators of the system and shall be provided with proper connection to sewer. All the foregoing shall be of approved material, make, finish and placement, and there shall be provided, in addition to same, all pipe fittings and valves necessary to render the connections of all items to the boilers complete in every particular.

(E) BOILER COVERING. All exposed parts of boilers shall be covered with  $1\frac{1}{4}$ " of cement plaster applied to a warm surface in successive coats, each about  $\frac{1}{4}$ " thick; each coat, except the last, to consist of X Y Z asbestos cement, properly mixed with water and applied with a trowel, but with surface left rough for bond. Each coat shall be applied before that preceding is set, and only on a damp surface. After application of second coat, same shall be covered with approved poultry netting, tightly held against the cement surface and embedded in the next coat. Last coat shall consist of  $\frac{1}{8}$ " of X Y Z asbestos cement and approved Portland cement plaster, mixed neat in equal parts and troweled to a smooth, hard surface.

### ARTICLE 5. Piping.

(A) PIPING PLAN. As provided in the General Conditions, the Contractor shall, as soon as possible after award of contract, submit a diagram showing locations and sizes of all pipes, valves and radiation.

(B) MATERIALS. All fittings (except where brass is called for) shall be best heavy gray cast iron, and all piping shall be of standard quality. Where sizes of pipe are mentioned, it shall be understood to mean internal diameter.

(C) FLOW, BRANCH AND RETURN MAINS. Flow pipes and branches shall be run on grade, to and from the boilers, of not less than 1" fall in 10'0" run; and all pipes and branches shall be sizes given or as found in standard tables. All mains shall be so run in straight lines and all junctions so made as to avoid all traps or pockets which might hold air or water. All expansion and contraction of pipes throughout the system shall be provided for in joints thereof, so as to effectually prevent all tendency toward buckling or bending. All joints shall be steam- and air-tight.

(D) VALVING. In addition to the valving necessitated by inter-connecting of boilers, there shall be a full-sized main valve near foot of main riser in boiler room, one to control the main branch to the indirect-radiator stacks, and one for each of the three main branches in the roof space. Return mains shall be provided with horizontal check-valves, located where directed, to prevent water being forced from boilers into returns. Each stack of indirect-radiation shall have separate supply and check-valve. All valves larger than 2" shall have flange unions.

(E) RISERS, RELIEFS AND CONNECTIONS. All risers shall be erected plumb and straight and all connections thereto shall be made by double-joints to allow for expansion. All piping shall be run exposed, except risers in assembly hall, which shall be concealed in pilasters and effectually insulated. Where slope or size of pipe does not allow full vent of contained air, approved automatic air vents of sufficient size shall be provided.

(F) FLANGES AND UNIONS. At proper points on mains, branches and returns, there shall be located right and left couplings (for sizes  $2\frac{1}{2}$ " and smaller) or flange unions (for larger sizes) so that piping may be disconnected and re-connected without injury to apparatus or other parts of system.

(G) HANGERS. All flow and return pipes shall be supported by adjustable steel or wrought iron pipe-hangers, securely fastened to building construction at intervals of not more than 10'0" and so constructed and installed as to permit free expansion and contraction of piping.

(H) FLOOR AND CEILING PLATES AND SLEEVES. Where pipes pass through concrete walls and floor slabs, this Contractor shall provide sleeves of galv. iron or other suitable material, correctly and securely attached to forms in ample time to avoid cause of delay in pouring concrete. This Contractor shall have all such sleeves gone over and locations checked just before pouring and shall thereafter be responsible for same and shall pay for drilling all holes for which properly located sleeves are not found to have been provided. Where pipes pass through brick, tile or plaster partitions, this Contractor shall provide suitable sleeves for same, with instructions for their proper placement, and shall check all such installations before work is set, so as to obviate all patching due to changes in such locations. All sleeved openings shall be small enough to be entirely covered by finished plates. Where pipes pass through floors, walls and ceilings in plastered rooms, finish shall be made with heavy, cast, bright-polished, nickel-plated floor and ceiling plates of approved design and proper sizes.

(I) PIPE COVERING. All mains, branches, connections, and fittings in roof space and in rooms in basement in which no radiation is called for (including fan rooms outside of housings) shall be covered with approved 85% magnesia sectional pipe covering, 1" thick, and of proper size, put on in best manner, neatly covered with muslin, thoroughly pasted (with vermin-proof paste) and with brass bands at all joints. All shall be done in the most workmanlike manner. Valve bodies in roof space shall be similarly covered. Pipes unavoidably placed near outside walls in concealed locations shall be adequately insulated and offered for inspection before being covered by construction.

### ARTICLE 6. Radiation.

(A) IN GENERAL. The building shall be heated by means of direct and indirect radiation, located in the several rooms, as shown on plans and as called for in the following schedule. Radiation specified is from the catalog of the X Y Z Co. With the approval of the Architect, the Contractor may substitute equivalent items of other make, but all shall be new, smooth-cast, free from leaks, sand-holes or other defects and shall have been adequately tested before delivery.



## PENCIL POINTS

(B) INDIRECT RADIATION. Two stacks of indirect radiation shall be suspended from basement ceiling in locations shown, to serve as foot-warmers in floor above. There shall also be provided 4 sets of approved stack radiation of required size and capacity, each to consist of 4 stacks, all as shown on drawings. These shall rest, at proper height, on piers or pipe-standards, installed by this Contractor in accordance with details submitted by Maker. Each stack of indirect radiation shall be separately valved as provided for direct radiation. All housing of indirect radiation, also all duct work and register faces, are provided under another Division.

(C) SCHEDULE OF DIRECT RADIATION.

(Here follows a schedule giving the location, style, capacity, height, length and number of sections of each direct radiator in the building.)

(D) RADIATOR VALVES. Each radiator shall be controlled by an approved quick-opening, packless, radiator valve of proper size, similar to the X Y Z No. 111, nickel-plated all over, with polished trimmings. Each radiator shall also be provided with a nickel-plated air-valve similar to the X Y Z No. 222.

(E) SHIELDS. Each radiator in assembly hall, dining room and offices shall be fitted with an unpainted steel shield of proper size, similar to X Y Z No. 33. Enclosure of certain direct radiators in vestibules is provided under another Division.

### ARTICLE 7. Blower System.

(A) FANS shall be X Y Z No. 44, single-width, single-inlet, full-housed type with top horizontal discharge. The two fans shall be located in fan rooms in basement where shown, arranged to draw fresh air from intakes and force same into ducts as indicated, one to supply assembly hall, gymnasiums and rooms auxiliary thereto, and the other to supply all other rooms for which fresh air ducts are provided. (No exhaust fan is provided.) Each fan shall be fitted with over-hung pulley for belt-drive and shall be carefully balanced for running without vibration at 225 R. P. M., at which speed they shall be capable of delivering not less than 90,000 cu. ft. of air per minute, combined.

(B) MOTORS shall be of size, type and make guaranteed by the Makers of the fans to properly perform the service required, and suitable to the local electric supply. They shall be located in proper relation to fans and shall be connected to same by means of heavy leather belting of proper size, all parts provided and installed by this Contractor, ready for electric connections, except that rheostats, supplied with the motors, shall be delivered to the Electrician to be installed by him.

(C) FOUNDATIONS for fans and motors shall be of 1:1½:3 concrete provided by this Contractor, in accordance with specifications for other concrete work for the building, resting on concrete floor provided under another Division. Foundations shall be in accordance with Maker's detail drawings, and bolts shall be built into same in accordance with templates. Each fan shall rest on a ¾" cushion of cork or fiber insulation enclosed in sheet lead in an approved manner. Wood washers shall be used under nuts on fan foundation bolts.

### ARTICLE 8. Miscellany.

(A) ALL MATERIAL AND WORKMANSHIP used in the construction of the foregoing heating and ventilating apparatus shall be the best of their respective kinds. Nothing short of same will be accepted by the Architect.

(B) TEST. At completion of the work, or as soon thereafter as the outside temperature falls below 32° daily, the Contractor shall submit the heating and ventilating plants to a 30-day test, under the operation of the Owner's Employees and the direction of this Contractor, the Owner paying for the fuel used. This test shall be conducted while school is in session and, at the end of the period, if the test proves satisfactory, or if all evident defects have been made good and the work is found to be otherwise in accordance with the terms of the contract, the final certificate will be issued by the Architect. The issuance of such certificate and its payment by the Owner will not, however, relieve the Contractor from responsibility and liability under the terms of his guaranty.

(C) GUARANTY. The Contractor, in installing this steam-heating plant, hereby guarantees that it is capable, without undue forcing, of heating every room in the building in which radiation is specified, to 70° above zero, F, in coldest winter weather, and he hereby pledges himself to make good any shortcomings in this respect as well as any other defects in work installed under this contract which may be discovered within a period of 2 years from date of acceptance of the work and which, in the judgment of the Architect, are due to improper materials or workmanship. Should the Contractor consider the radiation specified for any particular location insufficient for his guaranty, he is at liberty to increase same, or he may substitute approved boilers of larger capacity, in place of those called for, but, under no condition, will he be allowed to reduce the sizes of radiators or boilers below specification requirements. During any official test of the heating system, it will be allowed to operate for 3 hours, with suitable fuel, with fresh-air intakes closed and the fans recirculating; then for 3 hours with recirculating cut off and the fresh-air intakes open. If such test is conducted during extreme cold, it will be permissible to choke the fresh-air supply 50% during the latter half of the test.

(Author's notes: The foregoing test is not for ventilating. The systems are supposed to be economically designed and, on the few days of extreme temperature to be experienced, it will be satisfactory if the building can simply be heated. The occupants will not be greatly concerned to know that, to accomplish this, the ventilating is not being conducted at full capacity. This is better than having a considerable amount of wasted radiation in the rooms, called into service only two or three times a year. In other words, in localities where -10° is coldest weather generally encountered, lasting a week at a time any winter, it is foolish to allow for a temperature of -20°, even though it may occur semi-occasionally.

The Makers' names and catalog numbers used in the foregoing specifications are purely imaginary.)

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm using them. When writing for these items please mention PENCIL POINTS.*

**"White" Door Beds and Space Saving Conveniences.**—New Catalog just off the press. A book for architects and prospective builders containing much valuable and useful data. Profusely illustrated. Contains typical layouts, article on efficiency planning and equipment, details of construction, sectional drawings, specifications, details of construction. Also contains many illustrations of "White" Space Saving Kitchen Cabinet, gas ranges electric ranges and medicine cabinets. Also contains list of recent installations. A. I. A. File No. 35n9. 9 x 11. 71 pp. The "White" Door Bed Co., 130 No. Wells St., Chicago, Ill.

**Electrical Specification Data for Architects.**—Simplified electrical specifications covering five groups of homes in various price classes, profusely illustrated with complete information for specifying. 36 pp. 8 x 10½. A. I. A. File No. 31-C. General Electric Co., Merchandise Department, Bridgeport, Conn.

*Published by the same firm. The Home of a Hundred Comforts. Large booklet, well illustrated showing the actual installation and results obtained through following the specifications outlined in "Electrical Specification Data for Architects." Typical floor plans, isometric drawings showing electrical wiring. 40 pp. 8½ x 10¾.*



## PENCIL POINTS

**Hajoca Brass Plumbing Goods.**—Catalog B contains brass plumbing goods for every need. Fully illustrated, and indexed. Stiff Cover. A. I. A. File 29h. 88 pp. 6 x 9. Haines, Jones & Cadbury Co., Philadelphia, Pa.

**Atlantic Terra Cotta.**—Monthly publication for the architectural field. Vol. 8 No. 6 being devoted to Modern Romanesque containing many full page and detail illustrations. Atlantic Terra Cotta Co., 350 Madison Ave., New York City.

**E S Bulletin.**—The issue for February contains much interesting data and news. Elevator Supplies Co., Willow Ave., Hoboken, N. J.

**Holmes Concealed Beds.**—Booklet illustrating and describing Holmes Concealed Bed for Every Requirement. Tables of sizes, installation charts, etc. Holmes Disappearing Bed Co., Woodstock, Ill.

**Bostwick Economy.**—Interesting booklet on the subject of steel lath. Shows process of construction, methods of erection, comparative diagrams, typical construction, floor and roof construction. Also contains data on Bostwick "Niles" Expanded Metal Lath, "Truss-Loop" Metal Lath, "Lock" Corrugating Self-Furring Lath. Specifications, detail drawings, tables of safe loads, profusely illustrated, 3½ x 9. 30 pp. The Bostwick Steel Lath Co., Niles, Ohio.

**Coburn Catalog No. 140.**—Valuable sliding door reference book. New Catalog just off the press contains complete data on the amount and type of hardware required. A very handy and useful document for architects and specification writers. Coburn Trolley Track Mfg Co., Dept. F-1 Holyoke, Mass.

**Through the Ages.**—Monthly illustrated magazine dealing with marble for both exterior and interior use. The February issue contains an interesting article on "A Study of the Resistance of Marble to the Action of Salt Solutions" by D. W. Kessler. Frontispiece in sepia of the Loggia of the G. A. R. Building at Topeka, Kansas, a brilliant creation in Vermont Marble. 70 pp. 8½ x 11. National Association of Marble Dealers, 648 Rockefeller Bldg., Cleveland, Ohio.

**Quick Hardening Concrete.**—A practical consideration of products, methods, results and costs. Interesting treatise on the subject. 20 pp. 7 x 10. North American Cement Corp., Hagerstown, Md.

**"Douglas Fir, America's Permanent Lumber Supply."**—Illustrated treatise on Douglas Fir written by a forester, telling why this is the wood of tomorrow as well as today, and how to use it. West Coast Lumber Trade Extension Bureau, 5562-G Stuart Bldg., Seattle, Wash.

**Hollow Walls of Brick and How to Build Them.**—Illustrated booklet containing complete information on the Ideal wall, including full data on new types of the Ideal wall. Description and construction data, details, specifications. 8½ x 11. 24 pp. The Common Brick Mfrs. Assn of America, Cleveland, Ohio.

**From Forest to Floor.**—Portfolio with eight full page color plates, drawings showing designs for parquet flooring, complete information on oak, maple, walnut and other rare woods. Notes on special designs, etc. 8½ x 11, in heavy filing binder. Indiana Flooring Co., 234 Rider Ave., New York.

**Horse Head Zinc Specifications.**—A. I. A. File No. 121. This document contains the essential information required in consideration and specifying eaves, troughs, gutters and conductor pipes. 12 full page detail drawings are included showing application of the material for a wide variety of uses. Complete specifications accompany the drawings, together with table of standard sizes, specifications for painting, soldering etc., 40 pp. 8½ x 11 in heavy folder. New Jersey Zinc Co., 160 Front St., New York. Applications for this document should be made on a business letterhead.

**"Bird's Business Builder, 1926."**—A work on a valuable line of products. Useful publication for architects and draftsmen, listing and describing the many Bird products, asphalt shingles and roll roofing, together with such material as Liquid Roof Coating and Building Paper and much other useful data. Bird & Son, Inc., East Walpole, Mass.

**Kolstad Mail Box.**—Leaflet illustrating and describing this type of mail box. Complete plan of mail box. Kolstad Mail Box Co., Duluth, Minn.

**Berg Concrete Surfacers and Finishers.**—Leaflet illustrating and describing this type of surfer and finisher. Illustrations of some big concrete jobs surfaced and finished by the Berg. Concrete Surfacing Machinery Co., 4669 Spring Grive Ave., Cincinnati, Ohio.

**"Peerless Heating and Ventilating Units."**—Booklet dealing in a comprehensive way with important matters of heating and ventilating schools, libraries, churches, theatres and other places where people are likely to congregate in numbers. Contains estimating capacities of heating and ventilating equipment, details such as heat losses, dimensions of chimneys, diameters of flues, etc. Peerless Unit Ventilation Co., Inc., Long Island City, N. Y.

**Designs for Fountains.**—Brochure containing many illustrations showing designs of many kinds of fountains built up of tiles of different kinds, pilasters, niches, spandrels and other parts. Tables of prices and sizes. Batchelder-Wilson Co., Los Angeles, Calif.

**The Indestructible Roof.**—Booklet illustrating and describing the installation of permanent concrete interlocking tile, with glass insets flat tile and channel tile, on all types of industrial plants and other buildings with flat and pitched surfaces. 10 x 13. 32 pp. Federal Cement Tile Co., 608 So. Dearborn St., Chicago, Ill.

**Ruberoid Strip Shingle.**—Booklet illustrated in color. 3½ x 6¼. 16 pp. Ruberoid Co., 95 Madison Avenue, New York City.

*Published by the same firm, Instructions for Laying Built-Up Roofs. Illustrated booklet, 8½ x 11.*

**Your Home Screened the Higgin Way.**—Booklet illustrated in color containing complete description of Higgin Screens designed to meet every need. 13 pp. 8½ x 11½. The Higgin Mfg Co., Newport, Ky.

**Safe Loading Tables and Standard Specifications.**—Pamphlet giving standard specifications for Massillon Bar Joist Permanent Fireproof Floors and Roof Construction, and safe loading tables for all spans from 4 feet to 30 feet 6 inches. Also gives detailed dimensions of the 21 standard bar joists covering this range of span. 8 pp. 8½ x 11½. Massillon Steel Joist Co., Canton, Ohio.

*Published by the same firm, Massillon Bar Joists, illustrated pamphlet describing this product and methods of use. 8 pp. 8½ x 11.*

**Brasco Copper Store Fronts.**—Portfolio containing selected examples suitable for different businesses and varying conditions of location. 32 pp. 8½ x 11. Brasco Mfg. Co., 5025 South Wabash Ave., Chicago, Ill.

*Published by the same firm Catalog 28 containing details of Brasco Copper Store Front Construction, also show cases, ventilator sashes. Also Details Sheets. Five sheets giving details and suggestions for store front designing enclosed in envelope in convenient filing form.*

**Zouri Safety Key-set Store Front Construction.**—Illustrated catalog containing complete information with detail sheets and installation instructions convenient for architects' files. 60 pp. 8½ x 10½. Zouri Drawn Metals Co., Chicago Heights, Ill.

**Water Sterilization by Means of Ultra Violet Rays.**—Booklet containing full data on a system of purifying water. 16 pp. 8½ x 11. R. U. V. Co., 383 Madison Ave., New York City.

*Published by the same firm, Swimming Pool Sterilization, booklet describing method of purifying water in bathing pools. 24 pp. 8½ x 11.*

**Specifications for Dampproofing, Waterproofing, Enameling and Technical Painting.**—Complete and authoritative directions for use of an important line of materials. Toch Bros., 110 East 42nd St., New York City.

**Standard Wall Construction.**—Bulletin 174. An illustrated treatise on the subject of hollow tile wall construction. 32 pp. 8½ x 11. National Fire Proofing Co., 250 Federal Street, Pittsburgh, Pa.

*Published by the same firm, Natco on the Farm, illustrated treatise on the subject of fire safe and permanent farm building construction, 38 pp. 8½ x 11, and Natco Homes and Garages, illustrated booklet showing the use of Natco Hollow Tile for private residences. 32 pp. 7 x 10.*

**"National" Bulletin No. 3, The Protection of Pipe Against Internal Corrosion.**—Illustrated bulletin discussing various causes of corrosion, and details are given of the deactivating and deaerating systems for eliminating or retarding corrosion in hot water supply lines. 20 pp. 8½ x 11. National Tube Co., Frick Bldg., Pittsburgh, Pa.

**China Sanitary Plumbing Fixture.**—Catalog "C" illustrated and describes the complete Douglas line of plumbing fixtures. 200 pp. 8½ x 10. The John Douglas Co., Cincinnati, Ohio.

**The Eljer Line.**—Complete catalog illustrating and describing the Eljer line of standardized vitreous china plumbing fixtures, with diagrams, weights and measurements. 104 pp. 3¼ x 6¾. Eljer Co., Fort City, Pa.

*Published by the same firm, Standardized Sixteen Circular. Illustrated. 18 pp. 3¼ x 6¾.*

**"The Hitching Post Problem is Here Again."**—Booklet explaining the solution of street motor parking problems 8½ x 11. The Hockenbury System, Inc., Harrisburg, Pa.

**Better Buildings.**—Catalog describing corrugated and formed sheet steel roofing and siding products, black, painted and galvanized, with directions for application of various patterns of sheet steel roofing in various types of construction. 32 pp. 8½ x 11. American Sheet & Tin Plate Co., Frick Bldg., Pittsburgh, Pa.

**Architects Specifications for Carey Built-up Roofing.**—Booklet illustrated, complete data to aid in specifying the different types of built-up roofing to suit the kind of roof construction to be covered. 24 pp. 8 x 10¼. Philip Carey Co., Lockland, Cincinnati, Ohio.

**Circle A Partitions Sectional and Movable.**—Illustrated brochure containing full data regarding an important line of partitions, also the Erection Instructions for partitions of three different types. 32 pp. 8½ x 11¼. Circle A Products Corp., New Castle, Indiana.

**Painting and Decorating of Interior Walls.**—Bulletin No. 3, illustrated. An excellent reference book on Flat Wall Finish, including texture effects which are taking the country by storm. Every architect should have one on file. 20 pp. 8½ x 11. Sherwin-Williams Co., 601 Canal Road, Cleveland, Ohio.

**Ripolin Specifications.**—Complete. specifications and general instructions for the application of Ripolin, the original Holland enamel paint. Also directions for proper finishing of wood, metal, plaster, concrete, brick and other surfaces. 12 pp. 8 x 10¼. The Ripolin Co., Cleveland, Ohio.

**Handy Book on Painting.**—Gives directions and formula for painting various surfaces of wood, plaster, metals, etc., both interior and exterior. National Lead Co., 111 Broadway, N. Y.



# PENCIL POINTS

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## DRAW, DRAW, DRAW!

IN THE WORDS OF "Ding", the incomparable cartoonist, "draw, draw, draw". Most of the wise men who have contributed to the advice for the young architect and artist seem to agree on this point. The schools of architecture lead the pupil to believe first of all that architecture is properly to be practiced by those who have a talent for drawing pictures and plans; second, that the basis of their education should be familiarity with classic forms and buildings and training in "design", and finally an understanding of the principles, (unfortunately not always the details,) of construction.

Mere facility in drafting, however, without imagination, the ability to conceive forms, and the generalship to carry out ideas, will not produce a real work of architecture. It is a fact that in rare instances vital American architecture has been produced by men who have little or no aptitude for drawing; these might be called "the exceptions that prove the rule". Ideas are essential; the ability to explain them by the skilful use of pencil and paper is a valuable accomplishment. In the language of the day, "be yourself". Imitate the masters to gain technique and understanding. When it comes to creating, all you have to draw on is your own personality. Unless you trust it you have little to give to the world. By accepting your individual slant upon life you pursue the only possible route by which you can add the essential factor that makes of a building an original and fresh creation.

The cultivation and development of the faculty of observation is one of the great essentials in education. If you observe with a pencil in your hand, you really see and understand the reason for specific things that have been introduced into the plan or the essential forms of the design.

Schools and colleges generally close in June, and it has become a popular idea with the student that

with the closing of educational institutions, education ceases for the months during which they are closed. In some professions this may be accurate, but for the architectural student it most certainly is not. He should spend his vacation drawing. This may be recreation or work, according to his aptitude, but it is essential to his growth. He should make sketches, measure buildings, jot down bits of detail and ornament that may catch his eye—his note book should be the sketched record of his months of vacation from academic study.

The man who is through school and does not have from June to September for vacation may think, "this does not apply to me", but it does. He works most of the year expressing someone's else ideas; when vacation comes it should be a time of re-creation, of re-exploring himself and adding up what gains he has made in the past year. The draftsman will not accomplish this by introspection—he must draw, use his faculties for all they are worth. He will, of course, find himself working "on his own," and it is in this way that he will find where he has grown into new power, overcome or out-grown old faults, and so forth.

The habit of drawing is one of immense value, as a means of developing the powers of observation, of improving the technique, and of broadening one's horizon. It will be found that the majority of architects still do summer sketching, carrying on a custom begun in their student and apprentice days, because they find it excellent training and great fun.

Most of this issue has been planned to act as a spur to the laggard, as incentive to the industrious and a help to both. We have assembled most enticing sketches, preceded by a comprehensive and practical treatise on the making of measured drawings, to carry our point, Draw, Draw, Draw!

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PENCIL DRAWING BY SAMUEL V. CHAMBERLAIN  
"LA MOUFFE"—PARIS



# PENCIL POINTS

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## THE GENESIS OF MEASURED DRAWINGS

SUGGESTIONS AS TO THE MEANS AND METHODS OF THEIR PREPARATION

*By Kenneth Clark*

THE ONLY WAY TO CONVERT an existing building into terms of drawings when the original drawings from which it was built are non-existent, is to measure the building itself and set the results down in the proper manner to allow of their study or use for other purposes.

If the student or draftsman who is about to measure a building will think of the process as merely a revision of the original procedure, i. e., the making of a set of working drawings from the building rather than the making of a building from a set of working drawings, he will be more likely to tackle the task with the necessary seriousness.

It should not be a case of getting a few general dimensions which are easily accessible and then supplying the balance and the details from a vivid imagination. If you are going to deal with concrete facts and reproduce or publish them as such, facts you must have, and the only way to obtain them in this case is with measuring tools of accuracy and precision.

The instruments necessary to execute the usual measuring job consist of the following: one fifty-foot steel tape, one six-foot pocket tape (steel), one six-foot folding rule, one three-foot folding rule, plumb-bob and line, one large (10") and one small (4") 45-90 degree triangle. Steel tapes are the only ones worth using, for all woven and cloth tapes stretch and become inaccurate after a little use in spite of all selling talks to the contrary. This applies to the six-foot pocket type as well as to the longer ones. Included in this list of instruments should be a camera, a good one, preferably of the film pack-plate type with ground-glass back for focussing, and it should be accompanied by a steady, substantial tripod. For making sketchy notes of interesting bits along the road during a sketching tour, the snapshot method is all right, but to bring back a real photographic record to supplement measured drawings requires more than this, of which more anon.

Notebooks for the recording of data in the field may be of almost any kind of paper or make up, to suit the personal taste of the operator. One requirement is imperative however; they should have stiff board covers to form a firm surface to draw against

while holding the book in the hand, for most of the work will be done standing up, on ladders, roofs, and other precarious footholds where a floppy-back notebook is a curse to be avoided. If you prefer cross-section paper, use it, as it assists in making it easier to draw straight lines and lines at right angles hurriedly. The 8 division to the inch type seems to work out best and 8" x 10" pads of this paper can be obtained at any architectural drawing supply store. Personally, I prefer plain notebooks with blank bond-paper leaves bound in, so that the crucial sheet of a set of measurements cannot be found missing when you have returned from the field, a characteristic occurrence with loose sheets. If you wish to be particularly "Ritzy," have notebooks made up, using metallic or "Cameo" paper. If you are a champion pencil-pusher you may get away with it and the drawings will look like steel engravings, but you cannot then make erasures, and a line put in is in to stay. Most of us, including the author, will prefer, I think, to stick to a paper that permits the referendum of the rubber, leaving the trick papers to the Chamberlains and Eggers who can draw a line once and for all time.

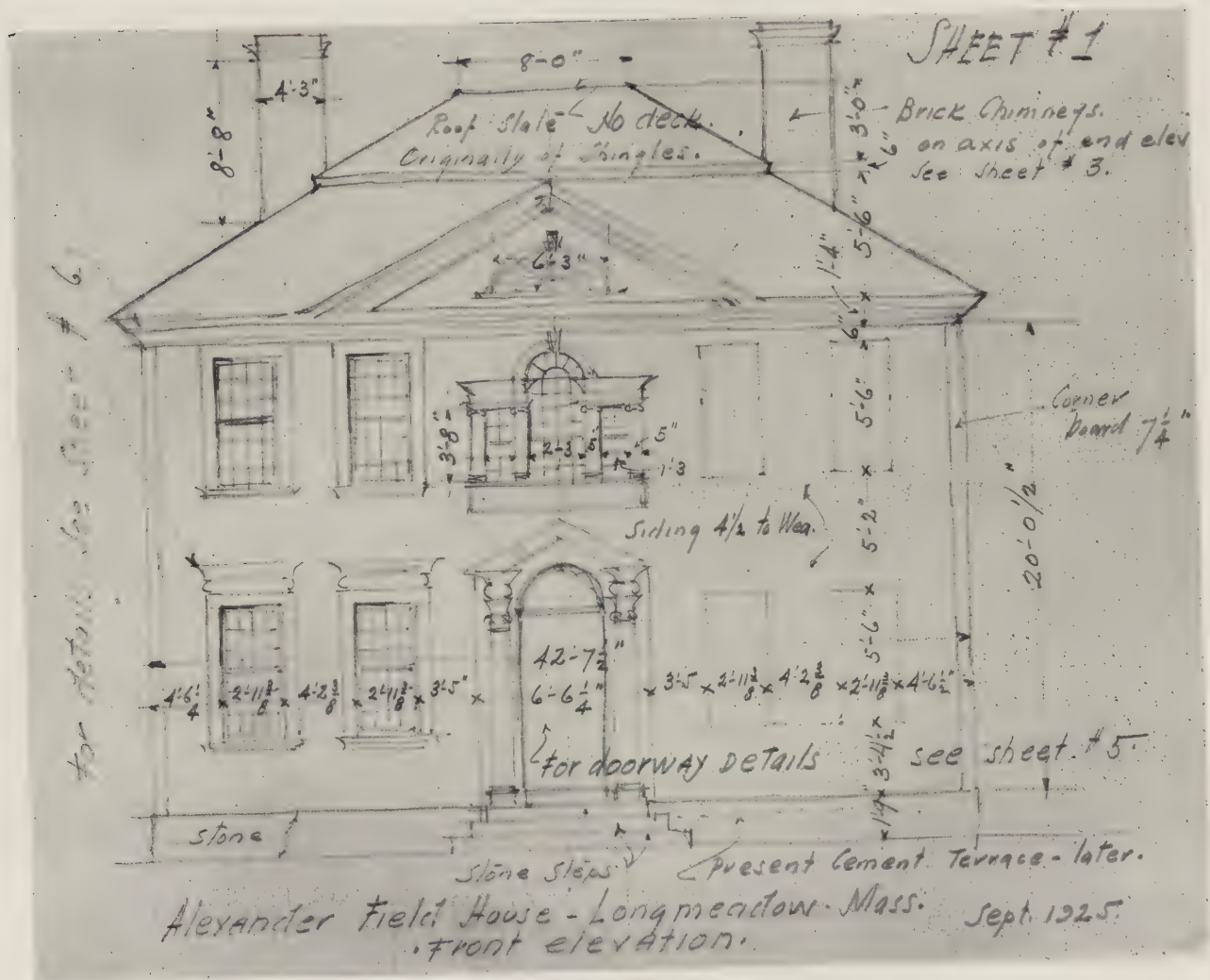
As my experience has been given principally to the measuring of examples of Early American Architecture for study and magazine reproduction, perhaps a description of the procedure gone through on a job of this kind will best serve the purpose of conveying any helpful hints which can be applied to measuring in general, irrespective of the subject.

First, ask permission to make your measurements, don't assume that no one will object; if you don't ask, some one always does the objecting. If it's a house, ask the owner; if a public building or church, find the one in charge with authority to give the run of the premises, and seek the permission from him. I don't know of a case where permission has been refused where a plausible reason for doing the work has been given, but I do know of an instance where no permission was asked, a course which resulted in the seeker after Colonial beauty being assisted to the street by a number ten Walkover reinforcing the foot of a very irate New England farmer.

To reach many otherwise inaccessible points on the job, ladders will be necessary. If you are lucky enough to find them on the place in the cellar or



# PENCIL POINTS



SKETCH DIAGRAM OF ELEVATION WITH MEASUREMENTS, DRAWN BY KENNETH CLARK

barn, well and good; otherwise the local painter or general contractor or carpenter will loan or rent you one and deliver it at the job for a reasonable fee.

The first thing to do at the building is to draw, in the notebook, diagrams of the elevations and plans on which to enter dimension figures. Don't try to draw them accurately to scale, just sketch them approximately, putting in dimension lines with arrowheads covering every figure you want, heights, horizontals, small plans through offsets, and so on. Doing this, helps at the last in checking to see that you have taken everything, for a blank dimension line is easy to pick up when the rest are figured.

Take the over-all measurements first. It's a great temptation to start off with some lovely piece of detail and leave the more uninteresting things for the last, but to get the data completely and with thoroughness it must be done systematically and to a fixed schedule. After the over-alls are recorded, take the window and door widths and the distances between openings, then the heights. A long stick is a help here. If you fasten the ring of the tape to the end of the stick, many points can be reached with it that would otherwise necessitate much climbing

up and down and moving of ladders. For heights never depend on measuring a few accessible brick courses and getting the upper heights by counting courses. The assumption that all courses are uniform is seldom true. The same warning applies to siding; in most early American examples the siding graduates in width from top to bottom of the elevation and a single course is useless as a unit of measurement.

In recording old work it will be found that few verticals are truly so; the old houses settle and lean, door heads take on a slant, posts are out of plumb, and many other deviations occur. In these cases it is best to assume the building to be as intended by the builder, i. e., truly rectangular, and so show it. Ceilings are sometimes two or three inches lower at one point than at another; take heights at several points and average them. Don't measure to sixteenths when the variations in a feature at different points may run to half an inch. Measured drawings of Colonial work have been published giving dimensions figured to sixteenths, and on re-measuring the job I have found that a figure for the same feature at a point a couple of feet away would vary half an



## THE GENESIS OF MEASURED DRAWINGS

inch from the figure given. A little common horse-sense in the person attached to the reading end of a six-foot rule is a great help. In measuring columns it is best to take the circumference, with the pocket tape if under two feet diameter, and with the long one if over, and then get the diameter by dividing by 3.1416. In cases of engaged columns or small ones the diameter may be taken directly by folding the six-foot rule into the form of a pair of callipers and measuring the distance between the tips with another rule.

When the over-alls and their main divisions are recorded, make detail diagrams, of the same type as before, of the principal features,—main entrance door, minor doors, typical window, and so on,—and measure the general dimensions of these. Take over-all heights of cornices and door heads, column bases and caps, over-all widths of trim, and similar detail, but no profiles. To take heights of cornices place a straight edge under the bottom molding at the end of the building and let it project beyond the overhang of the crown mold above, then measure down from the top.

For cornice or other projections, drop the plumb line over the edge of the greatest projection and measured from it back to the frieze or wall. Get all these *general* dimensions on paper before attempting to measure individual moldings or profiles.

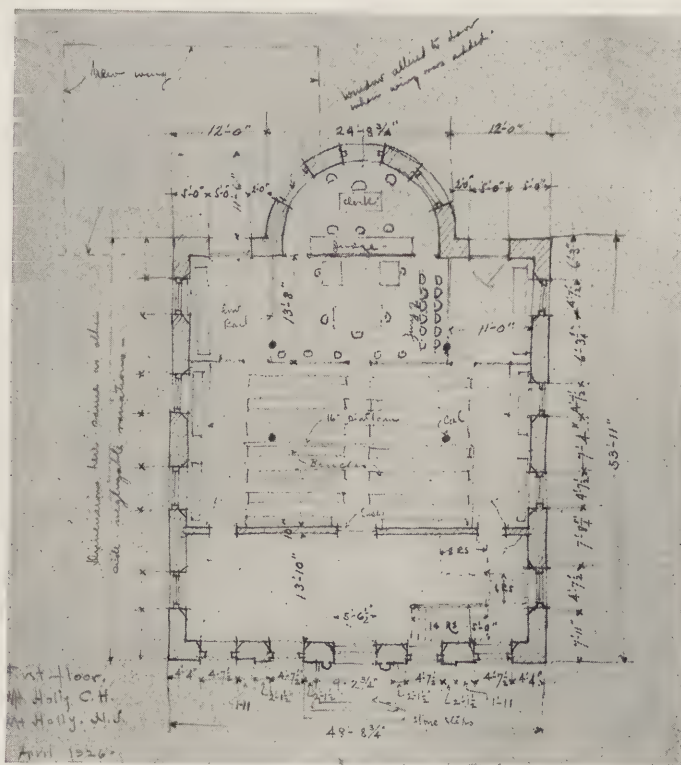
ing the measure individual moldings or profiles. All the work up to and including the last stage has been purely mechanical measuring of vertical and horizontal straight lines; now comes the recording of the curved molding profiles which is a quite different matter, full of subtleties, challenging the draftsman to show his skill and ingenuity. All sorts of strange and wonderful instruments have been devised to transfer the profile of a molding accurately from a building to black lines on paper but so far as I know all are dismal failures. Theoretically they may look perfect, but practically, in use on the job, they are pests. One method of taking profiles from stone moldings has possibilities; i. e., the lead strip. This strip of pure lead about  $\frac{1}{16}$ " thick and  $\frac{1}{2}$ " wide may be hammered on to the moldings so that after it has assumed the profile it may be laid down on paper and a pencil run along it to record the section. This

FIELD SKETCH OF  
MEASURED BY K

method in theory is well enough, and some mechanical genius yet undiscovered may perfect it so that it is practical as well. To make the lead strip assume a perfect profile, however, requires not much less than a kit of tools, with snippers to cut with and hammers and chisels to force it into small crevices, not to speak of a certain amount of leadsmithing ability on the part of the user. If it sounds interesting, try it. I did, once, and the outfit still lies, I presume, in the middle of a large green field where it was heaved with great gusto followed by a heart-felt curse. The practical method and the one that seems to answer all requirements is as follows: determine by measurement the horizontal and vertical positions of the start and finish of the molding, set them out with a scale, or on cross section paper which is of assistance here, and then draw in the profile as accurately as possible by eye, noting particularly any unusual variations from the standard academic form of the molding in question.

It is remarkable what accuracy can be gained with practice. Here again the futility of working to a hair line will become apparent on the job, for even stone profiles, especially in old work, vary considerably at different points on the same molding. Furthermore, even without the variations caused by the action of time and weather, a perfect profile taken at any one point and transferred to paper with absolute accuracy would be correct at that one point only. The mark to shoot for is the general *character* of the profile; if this is obtained and recorded, all usual needs are answered.

In transferring profiles of wood moldings from old work, the matter of paint has a decided bearing on the result; all small fillets originally crisp and sharp have become rounded, small channels and flutes tend to fill up, and the moldings as we see them are in no way a true example of what they were originally. Allowance must be made in measuring, for these deceptive conditions. Here, as always, mix practical considerations with your deadly accuracy and get the feeling of the work as it was conceived by its designer and craftsman, rather than a painfully accurate transcription of what a molding looks like when seven coats of paint have made it appear as it was never intended to be.

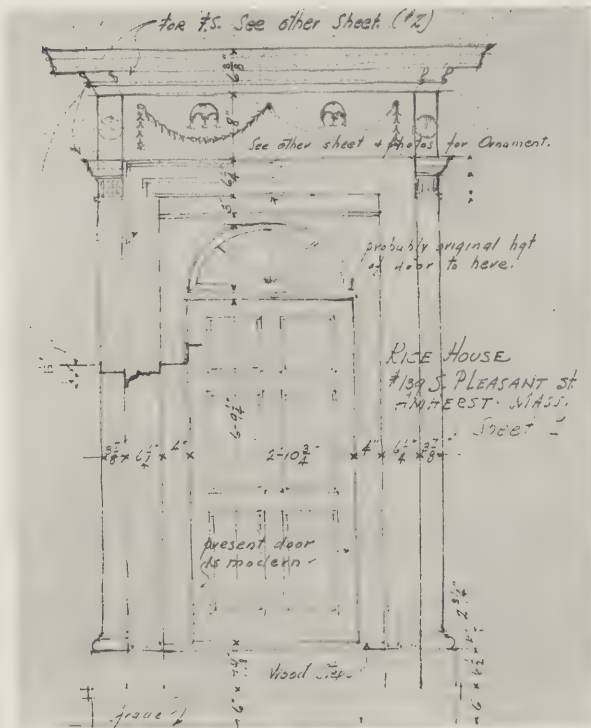


FIELD SKETCH DIAGRAM OF PLAN  
MEASURED BY KENNETH CLARK



## PENCIL POINTS

When all figures are complete and the last profile recorded, set up the camera previously mentioned on the tripod, opposite the center and parallel to the face of each elevation measured. Level it accurately, preferably with a small pocket spirit level, and focus sharply on the building with the aid of the ground-glass back. Stop the diaphragm opening down to at least F.16 and give a full exposure, say  $1/5$ th second for white buildings in sunlight and double or triple that for brick walls. Before exposing, attach to the building at some point near the center of the elevation, a scale, made on white paper with black ink, two feet long and divided into inches with good fat lines so they will be readable in the enlargement of the negative later. If, when you get home, any question comes up as to heights or widths, they can be

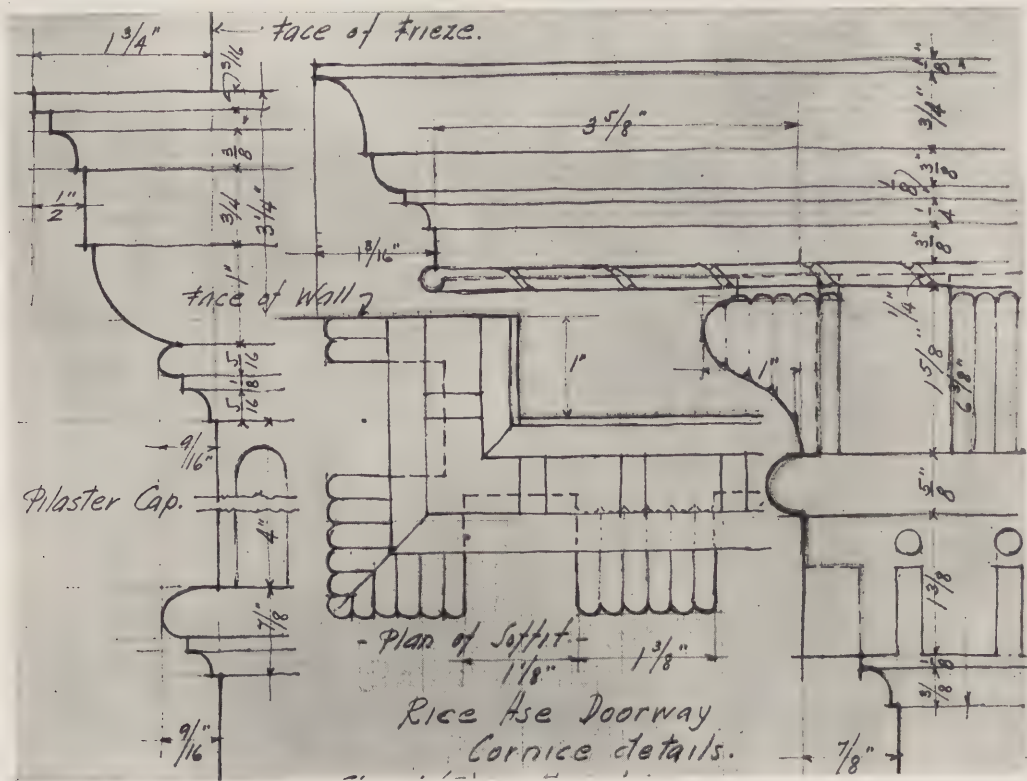


FIELD SKETCH OF DOORWAY  
MADE BY KENNETH CLARK

verified easily from an enlarged print. With a pair of dividers and the scale on the building, measurements can be checked or missing ones obtained. In cases where an elevation above the reaching point is inaccessible, very accurate drawings can be made by this method, but the negatives must be made carefully, needle-sharp, and with a truly level camera.

To measure heights of roof ridges and points that cannot be reached with ladders, it is necessary to take a photograph of the building from an angle and to lay out the perspective points on an enlargement of this. It is then a simple matter to project heights at any point up to a plane where known vertical dimensions exist so that the missing figures can be scaled.

If a panel of ornament has to be reproduced, get the over-all dimensions with a rule, take a direct



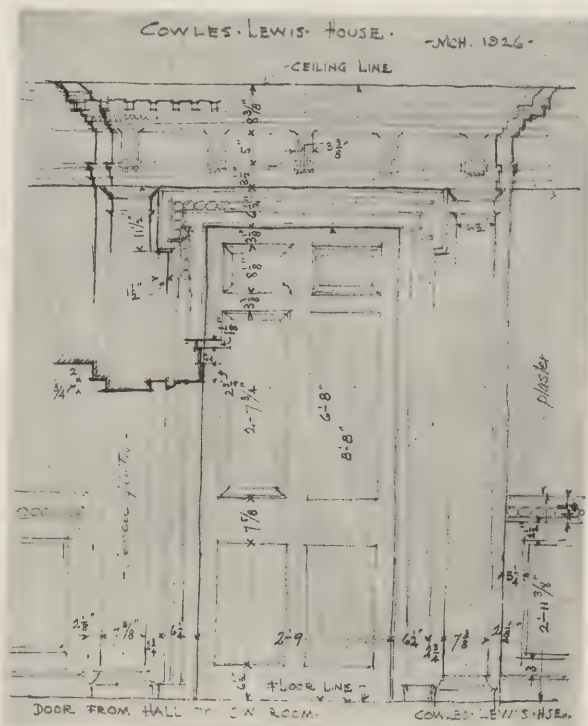
DETAILS OF DOORWAY, SKETCHED IN FIELD  
FROM NOTEBOOK OF KENNETH CLARK



## THE GENESIS OF MEASURED DRAWINGS

elevation photograph of it, and then in comfort at the drafting board make the drawing. It is much easier and more accurate to employ this method, than to attempt to reproduce the detail on the job by some complicated system of measured points, especially when you are standing on a precarious perch with hands full of notebook, rule, cigarette, and pencil, to say nothing of holding on.

The whole field of this photographic measuring deserves more investigation and utilization. Recently in experimenting I measured a building completely by taking photographs of every part, including details, profiles, and so on and reducing them to drawings. When all dimensions had been determined in this way I went to the building and checked them with rule and tape. The variations between the results of the two methods were not

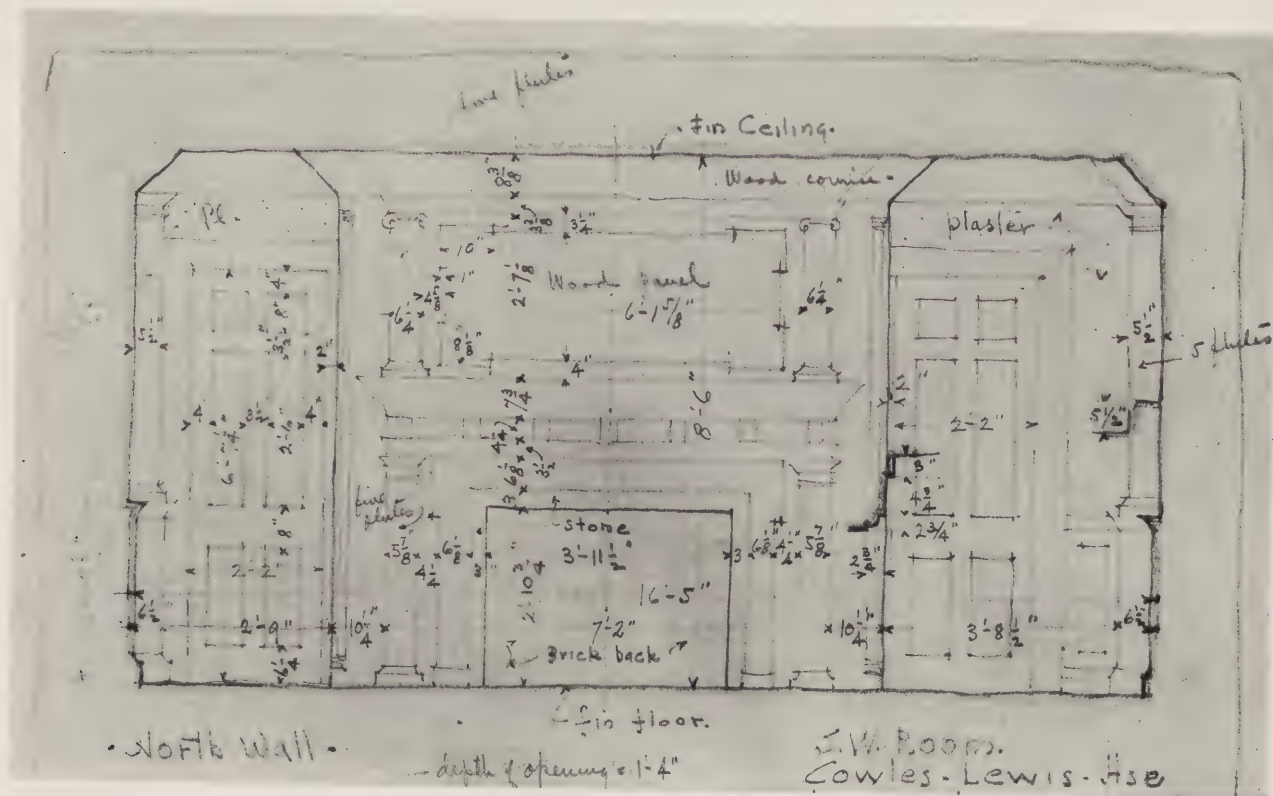


FIELD SKETCH OF DOORWAY  
MADE BY KENNETH CLARK

more than, if as much as, the difference that would naturally occur if the same job were measured by two individuals. To all intents and purposes one method was as accurate as the other, with the photographic method leading in the matter of speed and convenience.

Aside from their use in actual measuring, photographs furnish a quick and efficient means of securing permanent notes of a number of things that take time to draw when at the building. Such things, which can be obtained as easily and definitely from photographs as by measuring direct, include, for instance, the number of modillions in a run of cornice, the spacing of ornaments in a frieze, and the number of brick courses and vertical joints. These can be counted

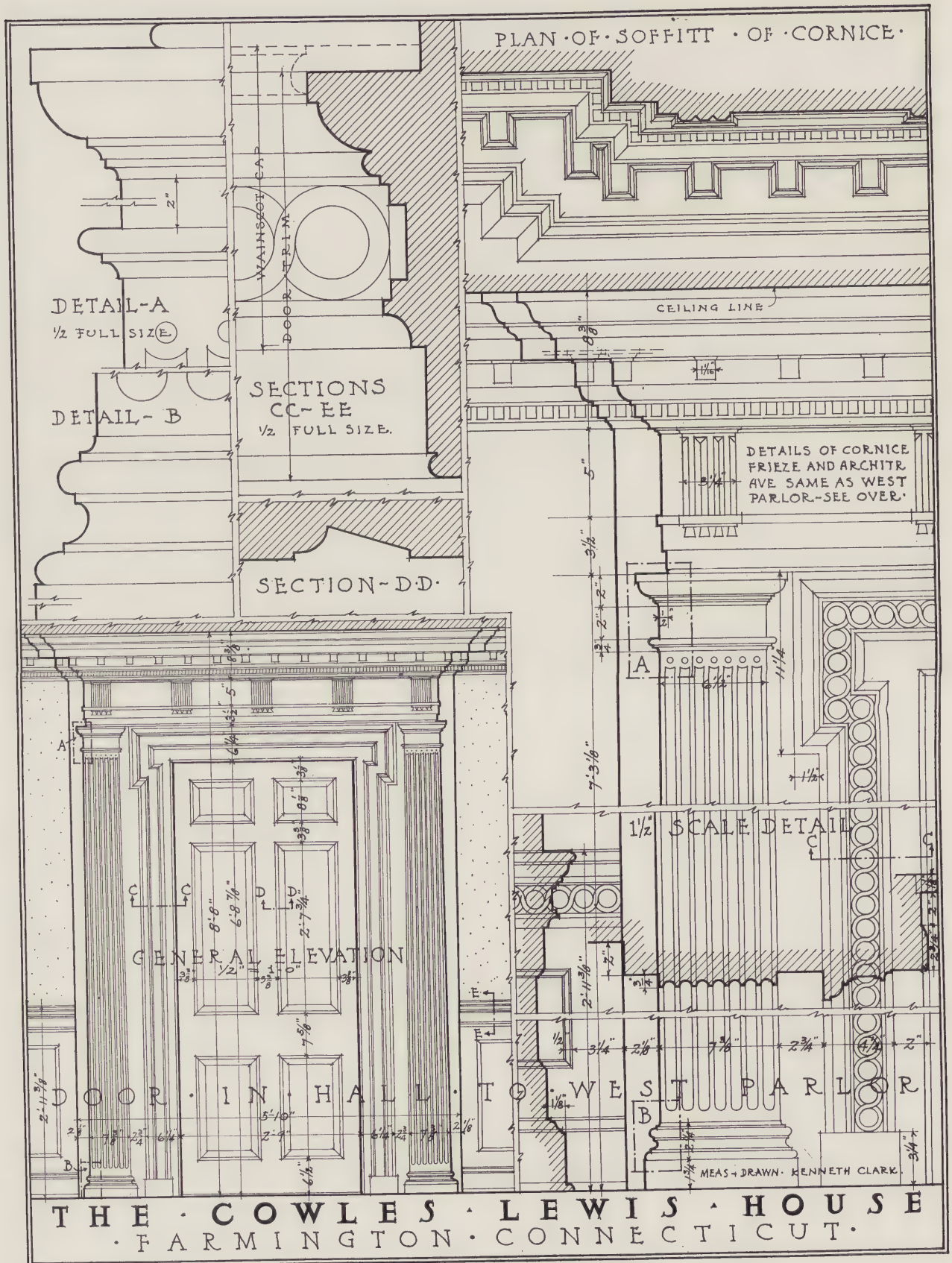
These can be counted and drawn in the spaces



SKETCH DIAGRAM OF INTERIOR WALL, MADE IN FIELD  
FROM NOTEBOOK OF KENNETH CLARK



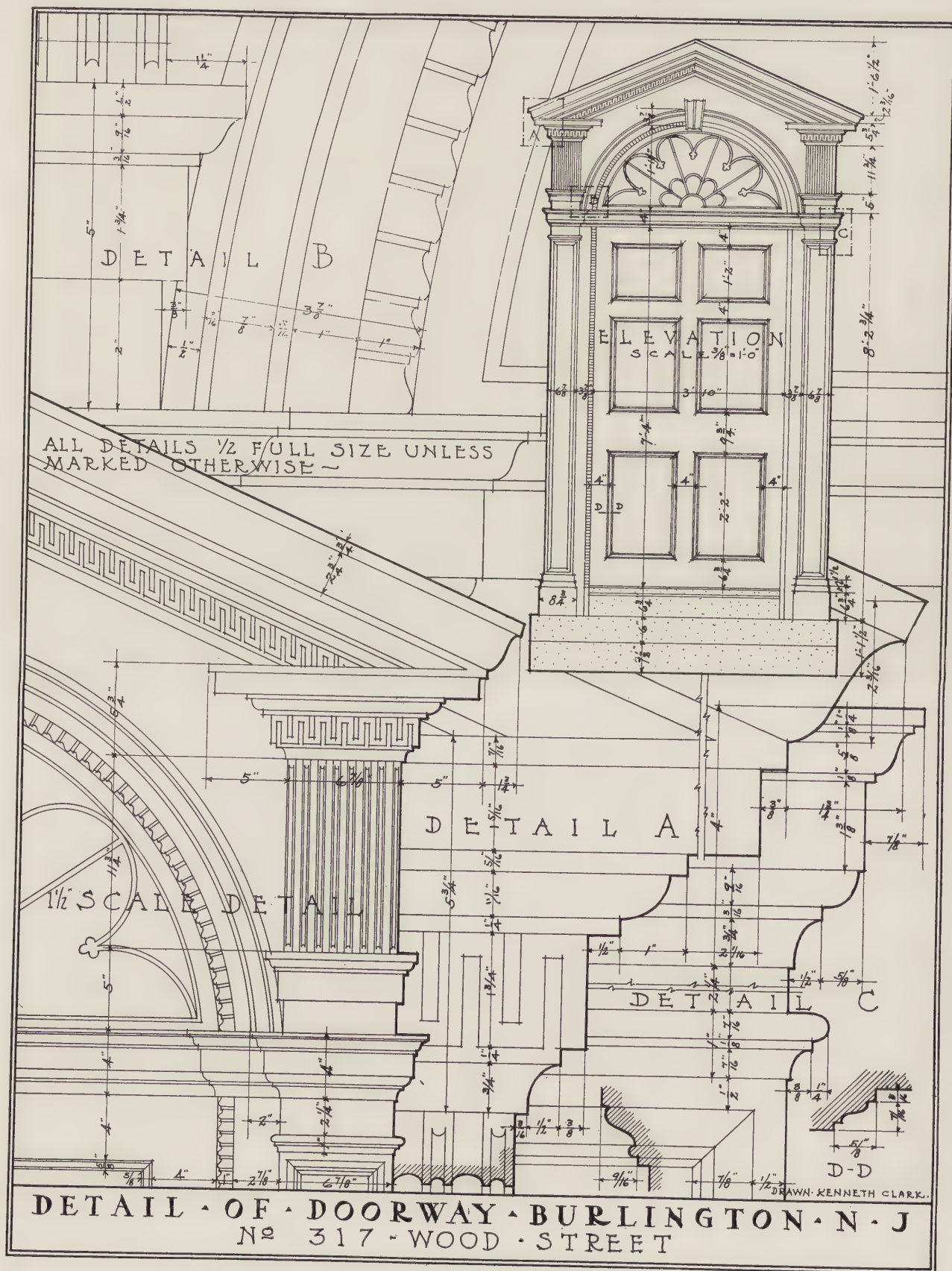
PENCIL POINTS



FINISHED DRAWING WORKED UP FROM FIELD SKETCHES  
MADE BY KENNETH CLARK FOR GEORGE F. LINDSAY COLLECTION



THE GENESIS OF MEASURED DRAWINGS



FINISHED DRAWING WORKED UP FROM FIELD SKETCHES  
MADE BY KENNETH CLARK FOR GEORGE F. LINDSAY COLLECTION



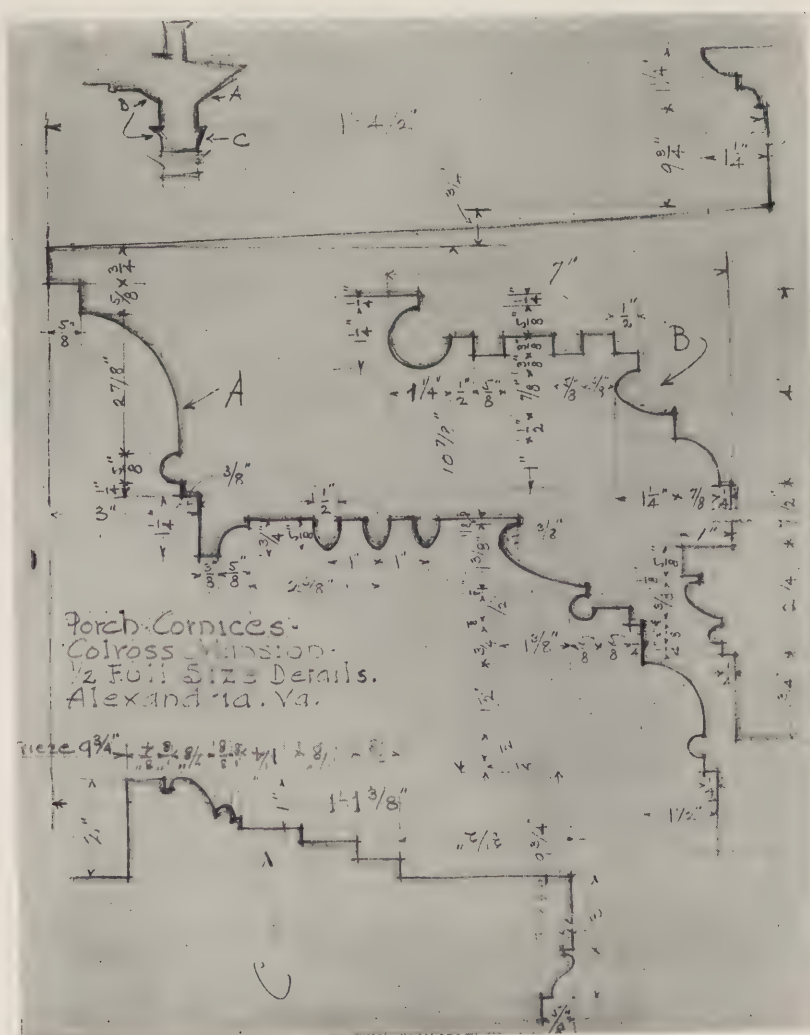
## PENCIL POINTS

All these uses of photographs are to be considered separate and distinct from their great pictorial value in showing the building in perspective as the eye sees it. Such photographs are always a distinct addition as supplements to a set of measured drawings, for they provide a means of studying the finished effect in conjunction with the drawings which show how it was achieved.

The ultimate use to which the drawings are to be put determines the type they shall be when drawn up in their final form from the data secured in the field. If for personal use and study they can be merely set up accurately on tracing paper to the scales desired. If for publication, the requirements of the

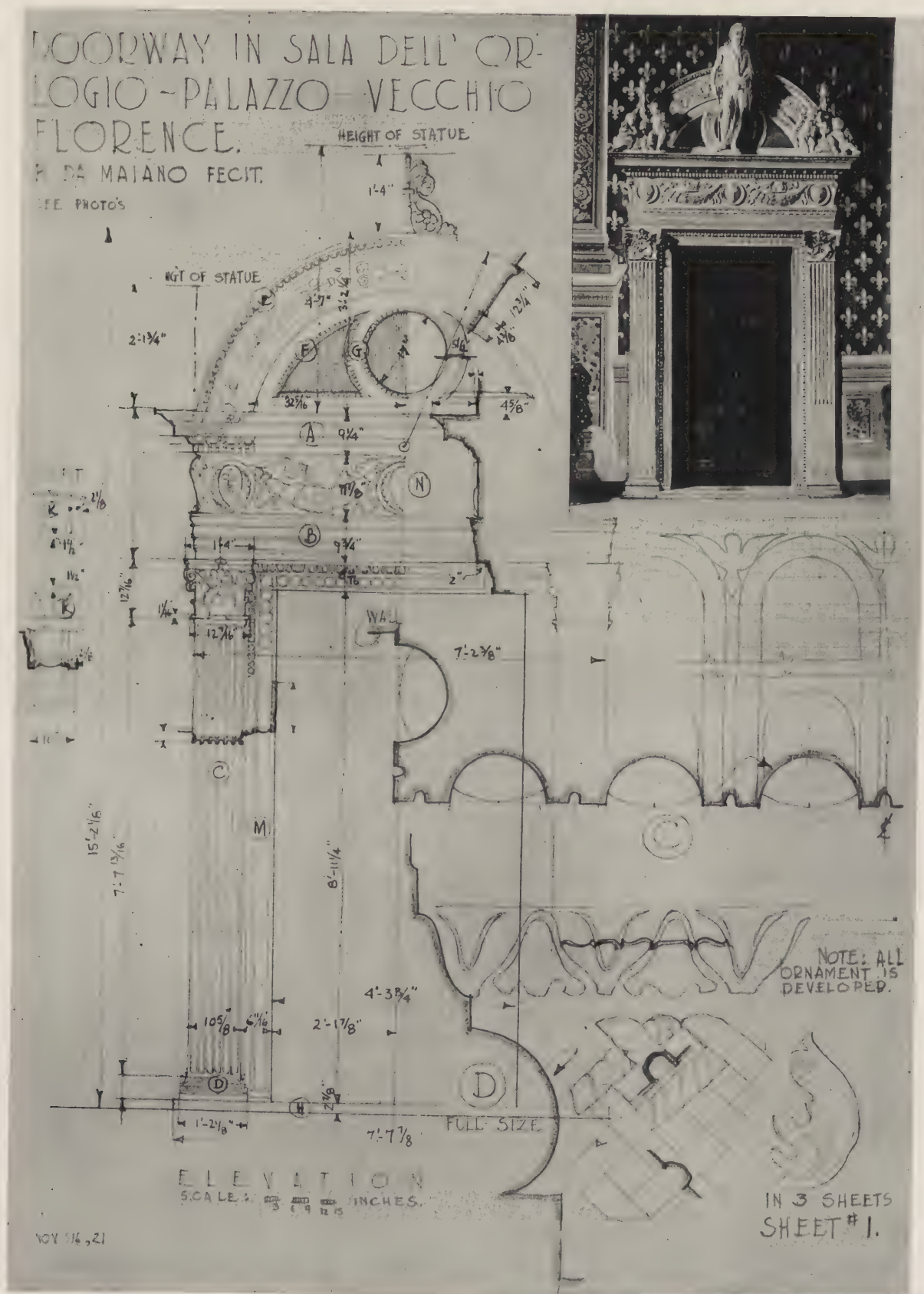
magazine or book fix the medium in which they are to be finished. For the usual magazine zinc line cut, which is the type of illustration generally used for such subjects, a method which answers the requirements is to draw the sheet on paper and then trace it in ink on cloth, using only black ink without dilution. Line cuts cannot reproduce any variation of color in line, everything must be true black, and any variations must be made in the width of the line itself.

The illustrations accompanying this article are extracts from field notebooks and are not shown as models of draftsmanship. They merely indicate the method used by the author in field notes, which has proved, over a rather extended experience, to be satisfactory.

FIELD NOTES OF DETAILS OF CORNICES  
MEASURED BY KENNETH CLARK

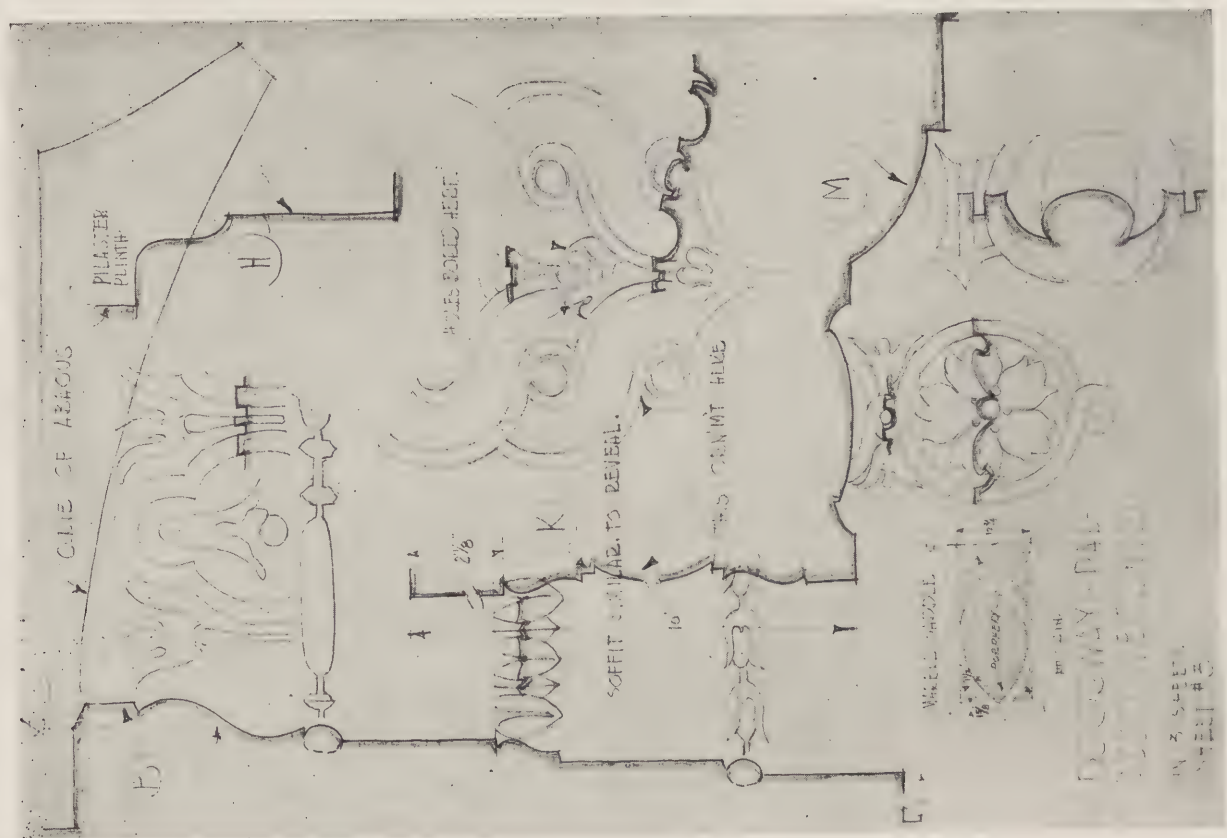


THE GENESIS OF MEASURED DRAWINGS



DOORWAY IN PALAZZO VECCHIO, FLORENCE, ITALY  
MEASURED AND DRAWN BY ERNEST A. GRUNSFELD, JR.





DETAILS OF ORNAMENT ON DOORWAY IN PALAZZO VECCHIO, FLORENCE, ITALY  
MEASURED AND DRAWN BY ERNEST A. GRUNSFELD, JR.





"MISTER JOHNSON'S HOUSE—ANN ARBOR," BY PERCY DANFORTH

## SUMMER SKETCHING

(EDITOR'S NOTE: This modest symposium upon Summer Sketching was contributed by one architect, one artist-illustrator, and one editor, each of whom nurses the hope that what he has to say, reinforced by the illustrations, may serve as a stimulus to the production of more and better sketches this summer by the draftsmen of America.)

### TO SKETCH OR NOT TO SKETCH?

WITH THE ADVANCE OF SPRING one of our great out-door pastimes, Sketching, is again at hand, and the artists are figuratively, if not actually, sharpening their pencils in anticipation of the great event. The young-and-hopefuls are wondering what kind of paper they should buy, and how many dozen sheets will be enough, while the confirmed ones are examining the sketching-stool to see whether it will bear its ever increasing burden safely for another year. At any rate we all are ready to go, with some, however, lacking just that little bit of assurance that a few words of counsel might give.

All the advice and well-wishes in the world will, in themselves, never make an artist, but there is much in being told

which road to take. The sketches reproduced herewith, show what it is possible to do on a Saturday afternoon or a Sunday, and the following will in some manner indicate how they were made.

Of course, neither these sketches, nor any words can describe the various little histories connected with each. And it is really surprising how many and varied these are; strange and inane remarks by people who will have "just one little look", words of criticism cruel but sometimes only too true, from the mouths of children, or advice sought by a fond parent for a daughter who is now at a milliner's, but who wants to make "big" money, in high art. That is the personal side of it. To the impersonal, belong the things that happen around you, and to which you become a



NORMAN CHURCH IN RAVELLO  
PENCIL SKETCH BY SAMUEL V. CHAMBERLAIN



silent spectator. In the city there are often annoyances, but I can recall of no instance in which there was not some redeeming feature.

My advice is to avoid all possibility of drawing a crowd, and that is best done by going out alone or in small groups,—never more than three,—making one's sketch not too ambitious in size or character, and having done with it in one sitting. That advice will hold, I think, even if there are no disturbing factors present. It is strange, but axiomatic, that the enthusiasm of the beginner always sets him the hardest task. He includes too much in his picture, and tries to show everything in detail.

Of materials I will say that they are not a primary consideration, except that water-colors and brushes ought to be of the best. Pencils and papers, however, often serve to best purpose when they are least expensive.

There is one plea which I should like to make with some emphasis, and that is not to treat sketching too casually after you have once decided to go out for an afternoon. I have, myself, gone out with friends who went out walking, as it were, but took a sketch book along with the idea of using it, if they happened to see something that inspired them.

Needless to say, they found so many things which interested them that they wasted most of their time trying to decide what to draw.

The best games are not played by those who carry their clubs or racquet with the idea of using them, should they happen upon the proper golf-course or tennis-court; neither are sketches produced in this spirit anything but failures or sad memories.

The best way, I think, is to indulge in a separate reconnoitering tour, to note the subjects, conditions for locating one's self, lights and shadows, etc., and then later on to go directly and immediately, to do or die while the inspiration lasts.

Otto F. Langmann



CRAYON DRAWING BY RUDOLPH J. NEDVED

*Original on light brown paper, size 10" x 14"*

#### AN ILLUSTRATOR'S POINT OF VIEW

IF ANYONE SHOULD ASK ME, "What would you rather do or go fishing?", on the instant I would answer, "Sketching." For it is a truism that "the joy of the sketcher no man knoweth but he who sketches." With sketching, unlike fishing, you are always sure of getting a bite, especially in summer. You may get caught in the rain, the sun may be too hot for comfort or the mosquitoes and flies too friendly, and you may sometimes fail to catch the "moment of interest" in the mood of the day; but when you bring in a "go",—a success,—there is a quiet and satisfied joy that has no substitute,—you have lived!

I have been out in all weathers and in all sorts of odd places, and I usually bring back permanent





THE HOTEL DE VILLE - LOCHES

PENCIL AND WASH DRAWING BY SAMUEL V. CHAMBERLAIN

*Original on rough water-color paper, size 7¾" x 10½"*

impressions of them in sketch form. I therefore know the satisfaction of catching that "moment of interest" which comes at some time, suddenly and without warning, into every scene in Nature, and which the watchful sketcher seizes upon for his picture. I have caught the transient shift of the sun, that comes when the storm is breaking over a mountain, in rain and in snow. I have sat among ruffians on a knock-about boat in the tropics and have made the scene mine in a sketch. I have been in mills and shops, and on farms, following plough-horses for action. I have done figures, the sea, the shore, and the mountains with their dells and glens, in oils, water-colors or in pencil. Sometimes it's a note, sometimes a finished water-color that goes to an exhibition, and sometimes a pencil sketch that quickly records a bit of action. Needless to say,

ships and any other things not entirely familiar to him, he is forced to exert his powers of observation to a much greater extent than when sketching buildings or groups of buildings with which he has become well acquainted during long hours over the drafting board. Moreover, he is forced to draw with greater freedom of line to interpret these natural forms and is thereby encouraged to extend his vocabulary of the elements of delineation beyond combinations of straight lines and geometrical curves. All of which makes him a better draftsman and a better architect. The man who has to think of architecture all day long in an office should relish the opportunity of sketching out of sight of anything that reminds him of his daily work. And where should he turn for true recreation but to Nature?

*J. Scott Williams*

my pleasure has been intense in the doing of them all. Furthermore they have turned to profit, for I think I have made use of almost everything I have done out-of-doors to build up compositions done in the studio. My tastes have been catholic and I have chosen widely varying types of subject to sketch, but some of the things jotted down for data have been used over and over again.

I would suggest to sketchers not to use a camera. It's lazy and does not train the eye for drawing. Draw incessantly, especially when you are young,—that's the time to burn the faculty in.

Mr. Harvey Corbett said to me the other day at lunch, "If an architect is to be a master designer he must also be an artist." I realize what he meant, and one of the ways for the draftsman to become an artist is for him to learn to see accurately what is about him. He will see most keenly when he has a pencil or brush in his hand and is in the act of making a sketch. Until he does try to draw a thing he will not really see it at all.

It is not necessary for the architectural man to confine himself to architectural subjects when sketching, nor is it even advisable. In the first place, by drawing landscapes involving rocks, trees, animals,





MARKET DAY IN ROUEN

"MARKET DAY IN ROUEN", SKETCH BY SAMUEL V. CHAMBERLAIN  
*Drawn in Pencil on Cream Paper—Size 10¾" x 13"*



SUMMER SKETCHING



"WALLABOUT MARKET, BROOKLYN," SKETCH BY OTTO F. LANGMANN  
*Made on light brown paper with black, white, and colored pencils*





"THE FISH MARKET," CHARTRES,—WOLFF PENCIL DRAWING BY SAMUEL V. CHAMBERLAIN  
*Size of Original 11" x 7¼"*





"A BIT OF OLD ANN ARBOR," PENCIL SKETCH BY PERCY DANFORTH

#### A FIG FOR YOUR CAMERA!

WITH SUMMER TREADING on the O'Sullivans of Spring, Nature has already sounded the call to sketchers, both veteran and novice, to be abroad in the sunshine, pencil, or pen, or brush, or perchance etcher's needle in hand, ready to record impressions as they may appeal. Why sketch? Well, why not? The camera, you may say, provides a much more rapid and easy way of collecting pictured information about architecture, or landscape, or ships and shoes and sealing wax, than do the implements of the artist. Granted, but is it Art? and does it satisfy? He who believes that "kodak as you go" is a slogan more conducive to pleasure and profit than that well known plea of the drawing teacher, "A sketch a day keeps sclerosis away" is, of course, entitled to his belief, and will undoubtedly cover a lot of ground and come home from his vacation

with a delightful collection of snaps. If, however, a man can draw recognizably what is about him, it is the thought of this pencil-pusher that he is foolish not to develop his talent by regular and continued practice. He will at least learn to observe more closely than his neighbor the kodaker, and in the making of pictures will have the tremendous advantage over him of being able to leave out objectionable or extraneous matter and concentrate his attention on the essential elements of his composition.

The systematic sketcher may be likened unto the traveller who goes abroad and spends enough time in each locality he visits to give him a fairly thorough acquaintance with it, while the prolific kodaker is as the tourist who rushes from place to place, "covering" everything, allowing a few days to a city or town, an hour to the Louvre or the Pitti Galleries, doing Europe up brown, and returning





A COURTYARD IN LISIEUX, DRAWING IN PENCIL AND GOUACHE BY RUDOLPH J. NEDVED  
*Made on rough, light-brown paper*



## SUMMER SKETCHING



"HAY-TIME," LITHOGRAPH SKETCH BY J. SCOTT WILLIAMS

home with an entirely superficial set of ideas of a number of things but no comprehensive or accurate information about any of them. Perhaps there are good points about each method of travel, possibly a combination of both is most educational. Analogously it may be best for the sketcher to have his camera at hand, loaded and ready to shoot at some transient picture, too fleeting to catch with his drawing tools. It seems to be generally accepted, though, that the more competent one becomes with the instruments of any graphic medium, the more one scorns the mechanistic method of the camera. The joy of the craftsman asserts itself in him who makes a good sketch "with his two bare hands," a joy which is infinitely keener than any which can conceivably be drawn from the routine of setting and clicking a kodak. The thing to do is to become that craftsman, and the way to do that is to sketch and sketch and sketch. The first hundred are the hardest.

Aside from the pleasure to be derived from sketching, which we will assume for the present to be its main incentive, there can be certain profitable by-products. If one is sufficiently vain of his pretty pictures, he may prevail upon his friends to accept them, suitably framed, as gifts. He may go further and, if they're good enough, achieve no-

toriety by having them published in PENCIL POINTS. Having thus established his reputation he may even be able to find someone gullible enough to purchase them for real money. If the sketches won't go, it is always possible to translate some of them into etching during the long winter evenings and thus multiply their potentialities as merchandise. These suggestions are, it is true, just a little mercenary, but even a sketcher has to have pin money.

The most real value of sketching to the architectural draftsman or student is, however, not so tangible. It is based on the information accumulated and on the training of hand and eye and artistic judgment. The young man, setting out on the long road to becoming a master architect, can in no other way so successfully as by sketching learn how things are put together, how materials are chosen to produce different effects, how mouldings and cornices and the myriad details that go into buildings are designed to perform their functions of use and ornament. He learns, further, through the constant exercise of his critical and selective faculties, the principles of composition,— that fabric upon which is woven the tapestry of architecture, no less than those of all the other arts.

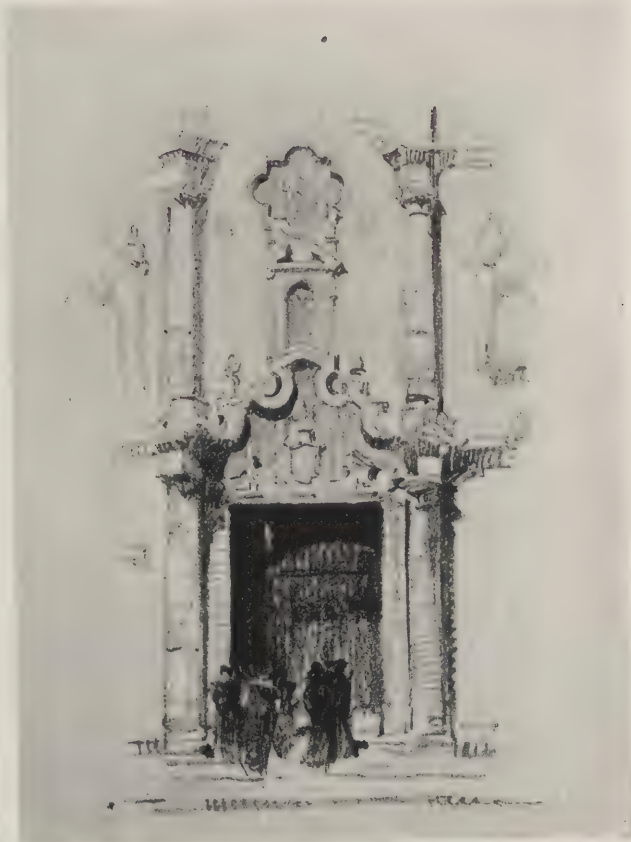
It is not the province of this short essay to delve into the mysteries of technique. Each man must



PENCIL POINTS



ENTRANCE TO THE PALACE OF THE POPES  
BY SAMUEL V. CHAMBERLAIN



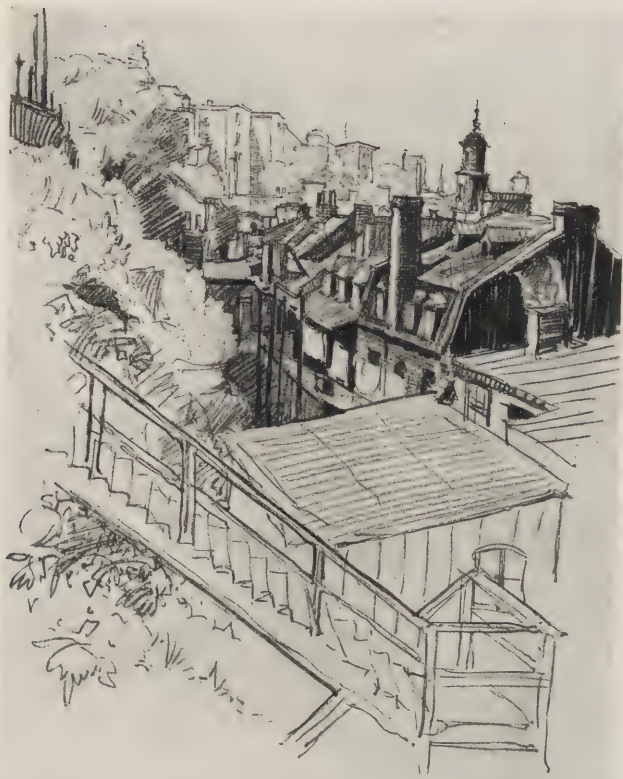
DOORWAY TO CATHEDRAL, HAVANA  
BY OTTO F. LANGMANN



"ON THE WAYS," LITHOGRAPHIC PENCIL SKETCH, BY J. SCOTT WILLIAMS  
*Drawn on Cameo paper*



SUMMER SKETCHING



ALONG THE OLD CITY WALL, QUEBEC  
BY OTTO F. LANGMANN



THE SHAW MEMORIAL, BOSTON  
BY KENNETH REID



"SOUTH STATION, BOSTON", MARKING CRAYON DRAWING BY OTTO F. LANGMANN  
*On Japanese hand-made silk paper*



## PENCIL POINTS

choose for himself the kind of paper, pencils, colors, and brushes most fitting for his peculiar style of self-expression, and decide how it is best for him to use them. Experimentation is good to indulge in at first but it may be carried to excess. It is better to find a satisfactory medium fairly early in the game and to stick to that until it is mastered. Then go on and find new fields to conquer. Do not strive for technique; it will come inevitably of itself as you progress. Indeed, it is most interesting to speculate upon the mysterious way in which each artist's individuality makes itself felt in even the merest sketch. Examine a set of pencil sketches by Eggers, Rosenberg, Chester Price, or Chamberlain. Each builds line upon line to produce a finished result which is a satisfying work of art, yet how differently each man speaks to us. Their work is not consciously mannered but each man's sketch is as naturally distinctive as his chirography. This

distinction is born only of confidence acquired through practice, just as individual handwriting develops through repeated early attempts to follow the example in the copy-book.

In choosing your subject, the particular type of thing does not greatly matter; it should appeal to your sense for the picturesque and should not be too extensive. "Hop" Smith once laid down as a principle, that you should "confine yourself to all that the eyes see at one glance and no more, or, in other words, that portion of the landscape which you could cut out with the scissors of your eye and paste on your mind". Good advice that, and strikingly stated. Follow it and you will find less difficulty with your compositions. And remember the other epigrammatic pronouncement of that same Mr. Smith, to wit, that "it takes two men to paint an outdoor picture: one to do the work and the other to kill him when he has done enough."

*Kenneth Reid*



WATER COLOR SKETCH BY J. SCOTT WILLIAMS



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





RENDERING IN WATER COLOR AND COLORED PENCIL BY OTTO R. EGGERS  
*Size of Original 21 $\frac{3}{4}$ " x 15"*



# WROUGHT IRON PRECEDENT

By Gerald K. Geerlings

(Editor's Note: This article is introductory to a series on the subject of wrought iron. The author spent a generous fraction of a year's foreign travel in making photographs, drawings and notes on the subject in its application to modern practice and will present in the series much material heretofore unpublished.)

IN THE NEXT ERA when histories have us properly cataloged and pigeon-holed we will no doubt be derided for causing such bitter diversion of opinion in getting relegated to an exact age. Perhaps we shall be favorably compared with the Stone Age—or the Golden. Fragments of discovered building reports will be quoted to prove we belong to the first, and radio company dividends that we were in the second. But some hawk-eyed archaeologist, greedy for fame, will attempt to settle the dispute by producing a Fifth Avenue fragment of our monumental debris. With a becoming gesture he will declare we belong to neither, but dub us creators of the "Cast Stone Age," or the "Age of Imitations."

As a matter of fact, we may as well admit in a stage whisper to each other in the building profession (architectural or otherwise) that we spend a good share of our energy making things "look like what they ain't." A flimsy curtain wall is palmed off on the unsuspecting public as an honest-to-goodness Florentine palazzo made of real stuff. The walnut paneling in its lobby is nothing more than plaster with enough faked worm holes to house a million mythical colonies. The ashlar sandstone in the monumental halls has been poured from sacks labeled "Caen Stone", without an idea that there is such a place which lent its name to that creamy stone which makes the Loire architecture immortal. The rubber floors are given vibratory color treatment to make Botticino marble turn verd antique with envy. All to what purpose? Our archaeologist is certain he is correct—we are the Age of Imitations.

There is one ray of hope. The villain archaeologist who would despoil our vanity by perfect proof of hundred per cent use of heinous imitations, trips on a piece of a wrought iron grille. His hopes are dashed—here is a material used as it was meant to be. It is no virtue of ours, however, because for all its good-nature and accommodating spirit, wrought iron asserts a seeming puritanical conscience by looking and acting only what it is. Nor can anything steal its copyrighted traits.

We may fashion plaster like Caen stone, rubber flooring like marble, composition sawdust like carved wood, but in the craftsman's use of the term "wrought iron", we can make nothing imitate it. In commercial efforts to be "arty" and turn out hand made articles in gross production with the much-vaunted "American efficiency", one sees such pathetic attempts as to make imitation wrought iron bridge-lamps out of cast iron. Thumb marks on applied putty are supposed to represent hammer marks, while a silver and black finish completes the texture. By the time that process is perfected the cost will no doubt exceed that of the genuine article. But no matter. We enjoy our little jokes.

Apparently we have no such definite ideas about wrought iron distinguished from cast iron as we have concerning the differences between stone and terra cotta. We understand the limitations of the latter well enough, both in the differences in cost and the method of detailing. But as to wrought iron versus cast iron, we know only that the latter is cheaper. By force of habit we decide the wrought article is a rather indefinite quantity, so why jeopardize a client's interest! And cast iron gets itself written into the building. Not that anything is wrong with cast iron, any more than anything is amiss with terra cotta. But just as stone can gain effects which terra cotta cannot because of natural endowments, so also with cast iron's cousin, wrought.

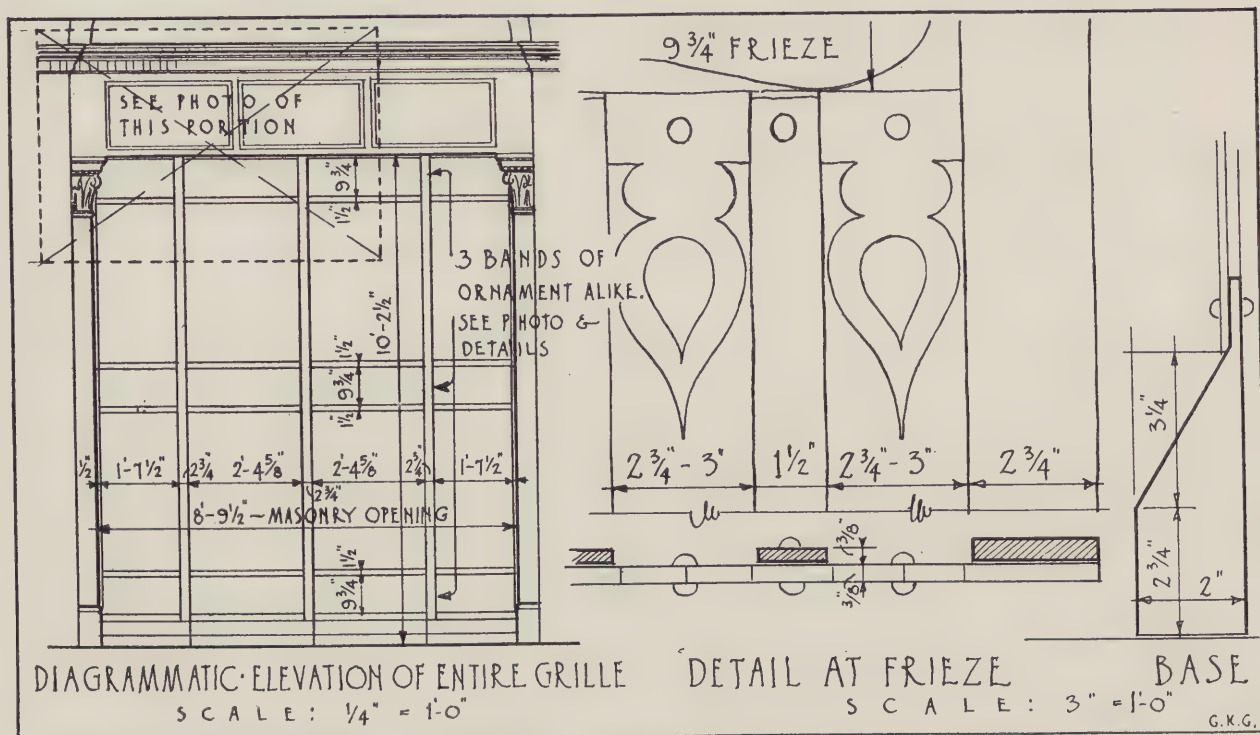
To define "wrought iron" is at once a simple and a complex matter. In this sense it is simple—its name is self-explanatory. "Wrought" iron is "worked" iron, which is worked on the anvil by hammering while it is hot, cooling, and, sometimes, cold. "Cast" iron, on the other hand, is "cast" in moulds and not worked beyond the point of having itself poured. The more complex task about defining wrought iron lies in explaining how it can best be worked, and in what capacity it makes itself most advantageous and adaptable. Stress the latter in this age when architectural design is determined almost entirely by cost!

At the present time not a great deal is accessible either graphically, literally or photographically on the subject of wrought iron. There is the invaluable "Il Ferro," by Giulio Ferrari, with numerous photographs illustrating the well-known iron classics, but only few drawings showing the family life of wrought iron and a tantalizing text in Italian. A. N. Prentice in his "Renaissance Architecture and Ornament in Spain" gives some excellently presented examples of the luxuriant and majestic Spanish *rejas*, while the comprehensive "Rejería of the Spanish Renaissance" and "Spanish Ironwork", both by Byne and Stapley, blazes the glory of the *coro-rejas* (choir grilles). These three books on Spanish iron-work concern themselves principally with the monumental achievements in cathedrals which are on a scale in size and magnificence greater than America yet possesses. In addition there are scholarly books on Spanish and Italian details which often include a few well selected and presented examples of iron-work. Add Uhde and you have almost completed the list of usual and usable office material.

In all humility the author is therefore setting out to illustrate by photographs, known and unknown, and detail drawings of parts of many of these photographs of genuine and excellent wrought iron, which can readily be applied to modern practice.



# PENCIL POINTS



MEASURED AND DRAWN BY GERALD K. GEERLINGS

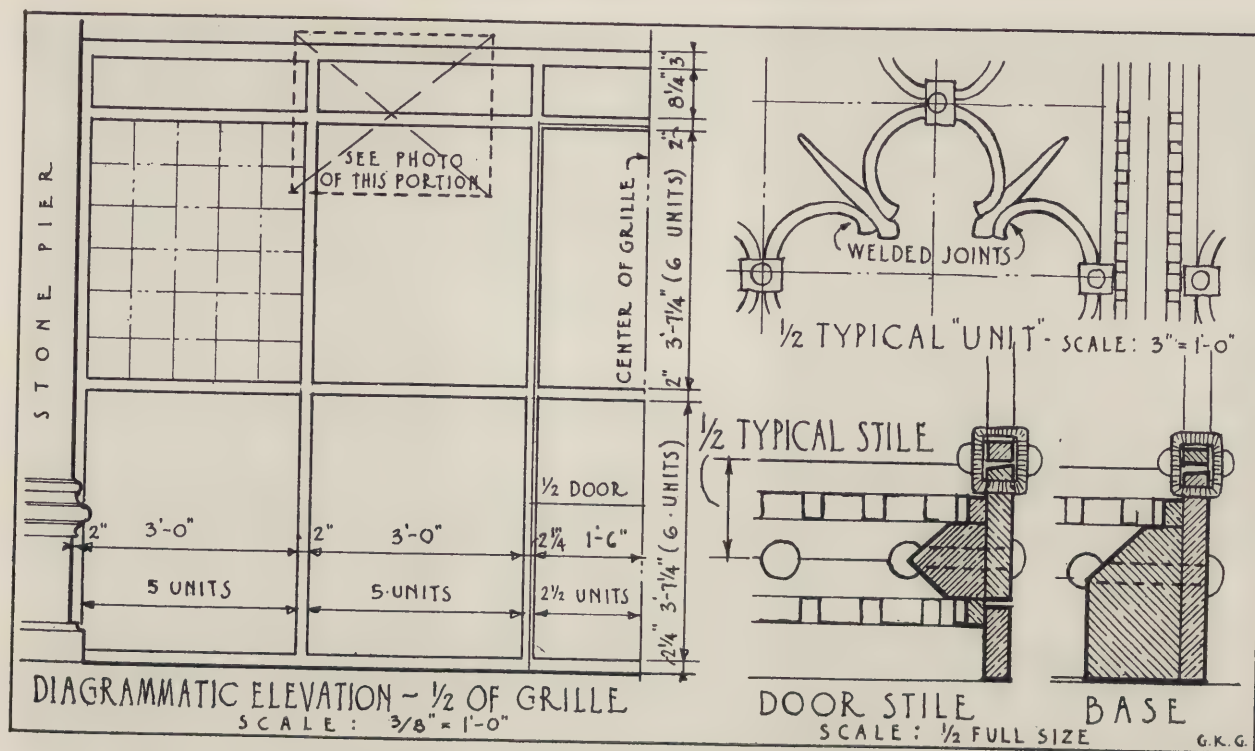


Photo by Alinari

GRILLE IN CLOISTERS OF S. MARIA NOVELLA, FLORENCE



# WROUGHT IRON PRECEDENT



MEASURED AND DRAWN BY GERALD K. GEERLINGS



Photo by Alinari

GRILLE TO "CAPPELLA BARTOLINI-SALIMBENI," S. TRINITA, FLORENCE





GRILLE OF THE PORCH TO THE MAIN PORTAL, CATHEDRAL OF BRAGA, PORTUGAL



## WROUGHT IRON PRECEDENT



*Photo by Alinari*

FLAGPOLE SOCKET IN WROUGHT IRON

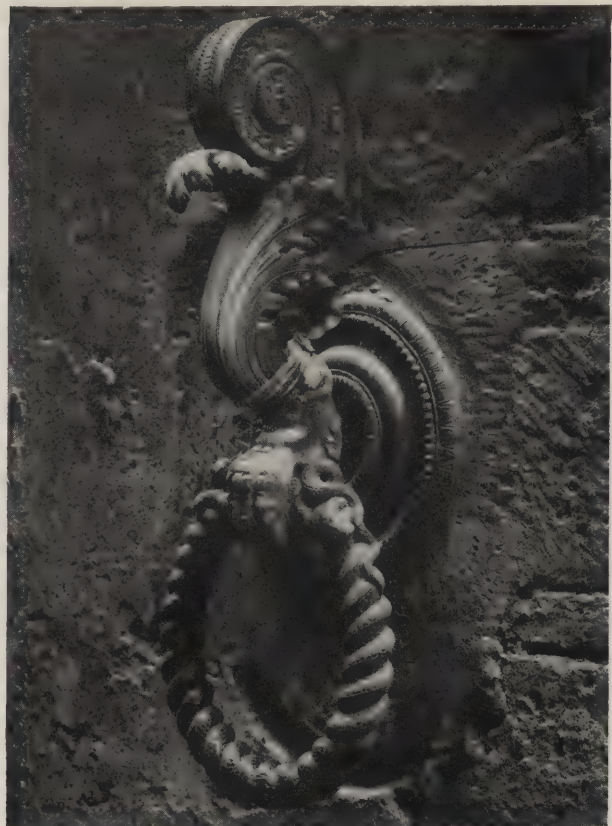
The majority of the metal work examples will be furnished by Mediterranean countries, selected with an eye for present-day limitations of finance. No attempt will be made to compete with the publications of monumental Spanish work already on the market. The emphasis will be on the intimate types of wrought iron, rather than on the grandiose monumental.

Chaperoning the illustrations will be a conscientious attempt to discover by analyzing the best examples of wrought iron what its characteristics are. The forms best suited to the material will be tracked down and contrasted with its related arts, bronze and cast iron. Following that, the dangerous subject of wrought iron design will be attacked bearing indelibly in mind the Russian adage: "In color and design there are no friends." In the invasion of such precarious territory we trust to wound no one mortally. Under this subtitle will range illustrations from work by the Spanish, Portuguese and Italian, while by way of variety there will be a small smattering from the Czecho-Slovakian, Austrian, English and Early American. Finally there is an intended scrutiny into the subject of good craftsmanship, pursued by a finale on working drawings and specifications on wrought iron.

As a salutatory gesture it may not be amiss to say something about the "wrought-ing," and this is simplest done by begging the indulgent reader to conjure up the village smithy. The essentials are all there: the raw iron, forge, anvil, array of ham-

mers, tongs, swages, fullers, and other tools,— and the blacksmith. To produce wrought iron artistry, give the smith a vigorous imagination, imbue him with an enthusiastic love for his work and that is all there is to it.

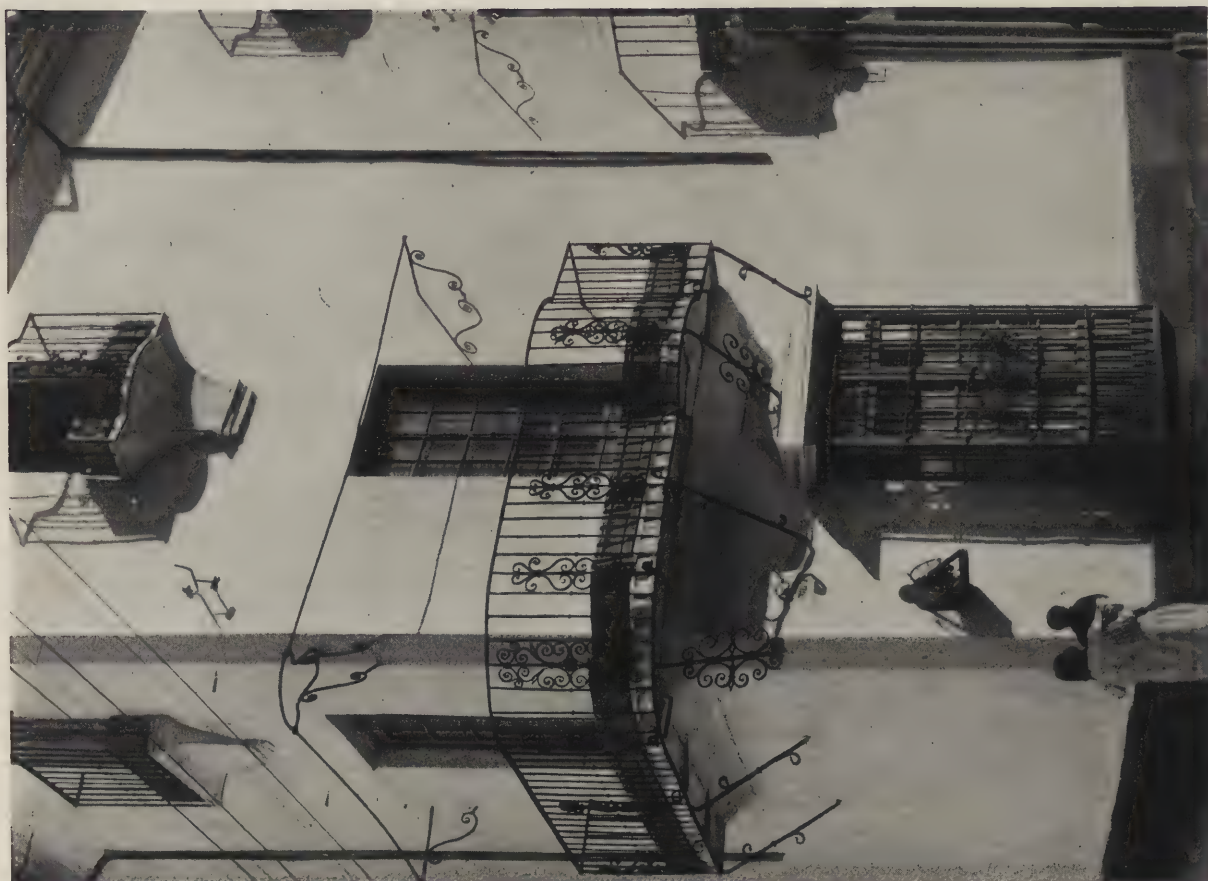
The raw material comes in the form of iron rods of various diameters, bars square in section, or plates with a large range of widths and thicknesses. Whatever sized or shaped piece is selected to be operated on, is firmly gripped in the jaws of a pair of tongs and poked into the heart of the forge fire. A bellows or a blower contributes the forced draft which helps to bring the iron speedily to a lemon glow. Then, taking the hot member from the fire and holding it on an anvil, (the tongs contributing a certain amount of comfort), the master craftsman boldly and confidently pounds while the pounding is good. In the case of large or heavy pieces a helper mans the tongs while the master manipulates the hammer. If he is a real craftsman he has thought out in advance the several steps in the operation. Thoroughly familiar with his material, he knows just how many blows he must strike to produce the desired effect and how hard each blow must be; when he must twist or bend the iron and when he must split it to produce the multifarious leaves, rosettes, spirals, and geometric or naturalistic forms involved in the design. Merely to pound a hot bar so as to obtain a uniform effect with successive blows is itself a complicated problem, for it is obvious that while the metal is at a yellow heat a



*Photo by Alinari*

KNOCKER IN HAND WROUGHT BRONZE



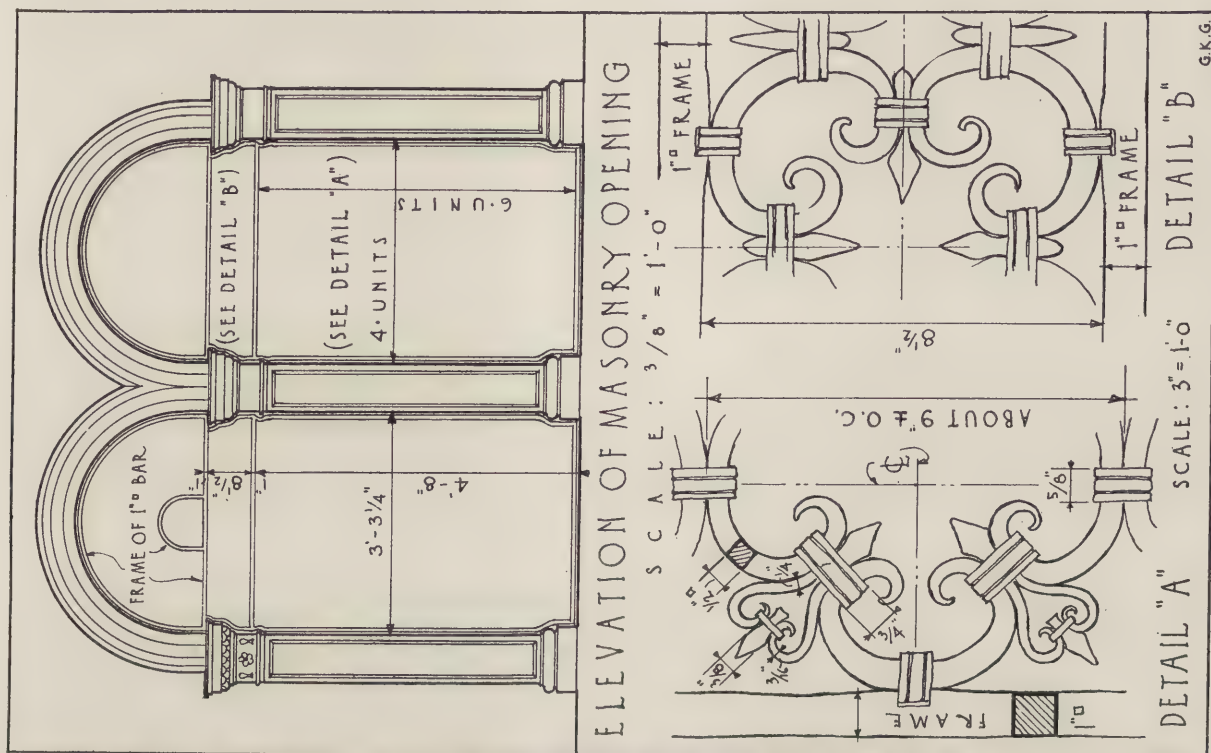
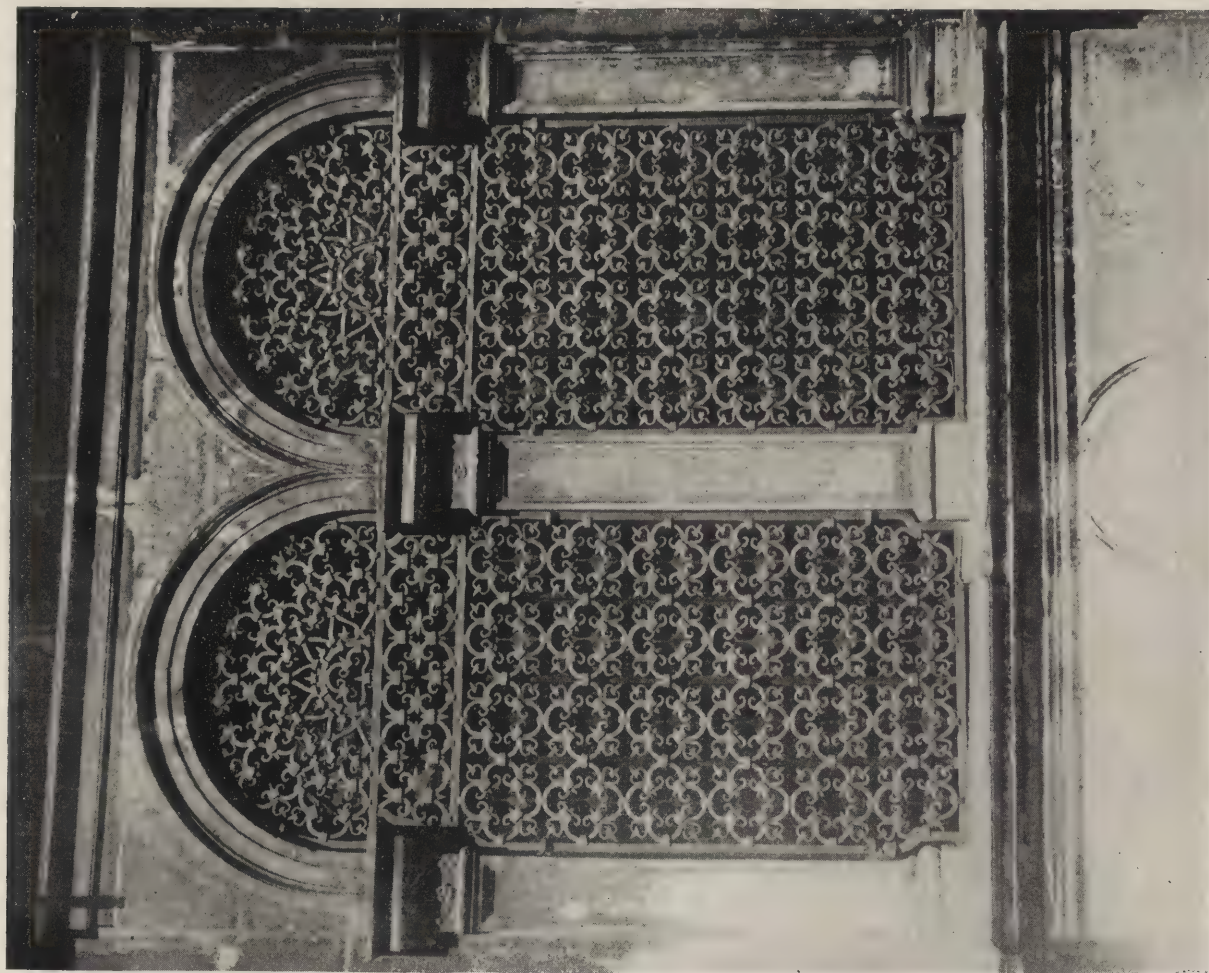


DISTINCTIVE ANDALUSIAN HOUSE  
RONDA, SPAIN



OPPOSITE ENTRANCE TO PATIO IN CASA DEL CONDE DE TOLEDO  
TOLEDO, SPAIN





WINDOW GRILLE IN SCUOLA DI S. GIORGIO, VENICE, ITALY  
 PHOTOGRAPH AND DRAWING BY GERALD K. GEERLINGS



blow of certain energy will make a bigger impression than that same force spent when the bar is cooler thirty seconds later. Splitting a bar for a portion of its length and fashioning from its several parts a flower, an animal's yapping head, and an ornate widget or so, in such a way that the working of one section shall not ruin another part which is still red-hot, takes an extraordinary lot of rapid thinking. Remember that while the hammer is exerting pressure on one side of the bar, the anvil is exerting an equal and opposite force on the other, so that if, for example, one face was intended to be flat and the other side rounded or ornamented, damage would result unless the smith took into account both of the compressing elements.

The means by which various effects can be gained in wrought iron will be taken up in detail when considering the characteristics of the material. For the moment it is sufficient to remember that wrought iron is most genuinely itself when produced by working hot under the hammer, although a certain small amount of "carving" may be done on the cold metal. With that in mind it is easy to understand that though an egg-and-dart ornament is readily cast in iron or bronze, it would be a tedious and thankless task to induce eggs and darts to be chiseled into a red hot bar.

Until recently, wrought iron was mentioned only in a footnote in the social register of building materials. In the best circles it was regarded as existing but not really counting. Its European ancestry was acknowledged as being duly ancient, but perhaps was thought to be of unfashionable origin. Only in the last decade has it been permitted to timidly present itself now and again in halls of state, in counting rooms and salons. Bronze was the fashion of the day when there was money to spend. When there wasn't, cast iron was the apologetic substitute. But wrought iron, no!

The general public was scarcely aware of wrought iron until photographs of imaginative Californian and Floridian architecture became widely published. Shops specializing in wrought iron knick-knacks, hardware, and lighting fixtures also helped in press-agenting its virtues.

At the present writing even the majority of architects are suspicious, wary, or doubtful about wrought iron, and have been little interested in considering its historic accomplishments or investigating its modern possibilities. But now Mr. and Mrs. Public have begun to ask for wrought iron.

Wrought iron is coming into its own. It has become a matter of habit on Tudor doors. The old "H" and "L" hinges of Colonial ancestry are being taken for granted. The country's leading architects in domestic work have attained effects with wrought iron which no other material could have made possible. In the realm of large national buildings it has scored an outstanding success in the majestic Federal Reserve Bank of New York City. York and Sawyer employed it there instead of bronze because of its greater harmony with the early Florentine type of architecture. It was used exclusively in this instance for all exterior doors and grilles, as well as all interior grilles, heating and

ventilating registers, bank counter screens, and lighting fixtures. Other leading architects have also found that this material of the craftsman can contribute the maximum amount of humanness to the appearance of a building, be it a residence, church, office building, bank, or what not. And quite naturally—for what other of our modern building materials is hand wrought?

The human element in the fashioning of wrought iron is at once an advantage and a disadvantage. It may bring about either a thing of beauty or a desecration. Wrought iron can be made to so beautify a wall that an ugly radiator recess may become an artistic asset, but a poor craftsman can so maltreat the iron and abuse his opportunity that even a door handle may lower the morale of an entrance. In short, there is no half way point in the quality of execution. Either wrought iron should be done by a first-class craftsman or not attempted at all.

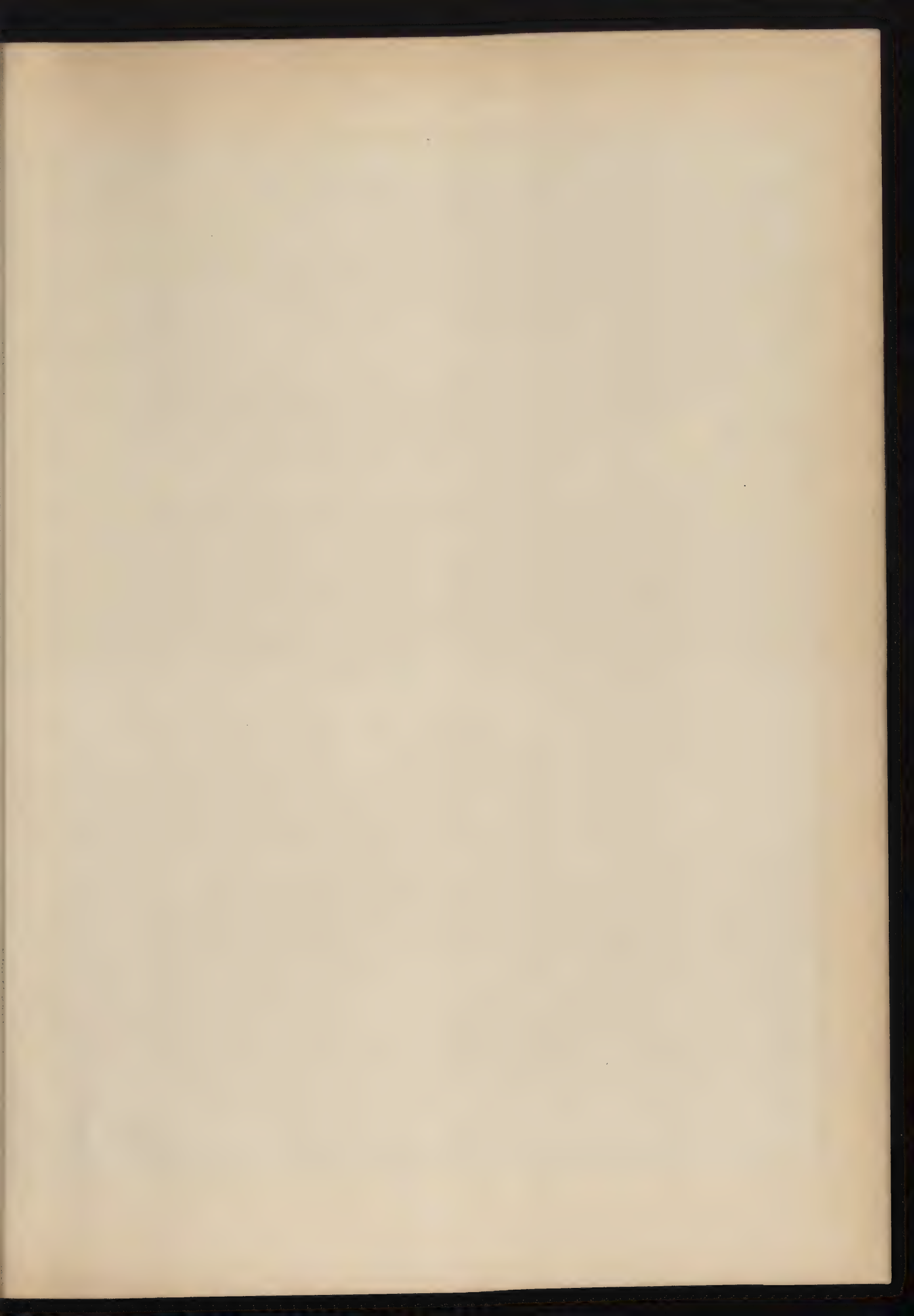
Of the illustrations accompanying this article, the close-up details on page 357 show very clearly the difference between bronze and wrought iron. Each example was patently designed by a man who knew his material, hence it is almost as difficult to imagine the design for the knocker executed in wrought iron or the flag-pole holder done in bronze, as it would be to actually so carry them out. On pages 354 and 355 are two excellent examples of wrought iron grilles, both from Florence. The one from Santa Maria Novella is of an unusual type, depending largely for its effect on the varied texture of the verticals. Three bands of flat ornament, at top, middle, and center, relieve the severity of the design. The detail drawing reproduced exactly to scale shows the simplicity of its construction. The other grille, from Santa Trinita, embodies some of the favorite motifs of Florentine iron work: the stiles and rails with the dentils, the repeating quatrefoil, and the panels of "retroussée" work at the top. The size of the quatrefoil unit is about 7" in height; its parts are here welded, although customarily banded together instead.

The views on page 358 include one at Ronda, Spain,—showing the typical Andalusian house with its wrought iron grilles, balconies, and clothes-line,—and one opposite the entrance to the patio in the Casa del Conde de Toledo, in Toledo. It is noteworthy in the latter that although every feature of the patio is most charming, the center of interest has been focussed on the window grille. Inside the 9" wood-carved jamb, the *reja* is 3'8½" wide by 5'6¼" high. All vertical bars are ½" square, twisted, while horizontal members are 1½" x ⅛". Top and bottom bars are 1⅜" x ⅝".

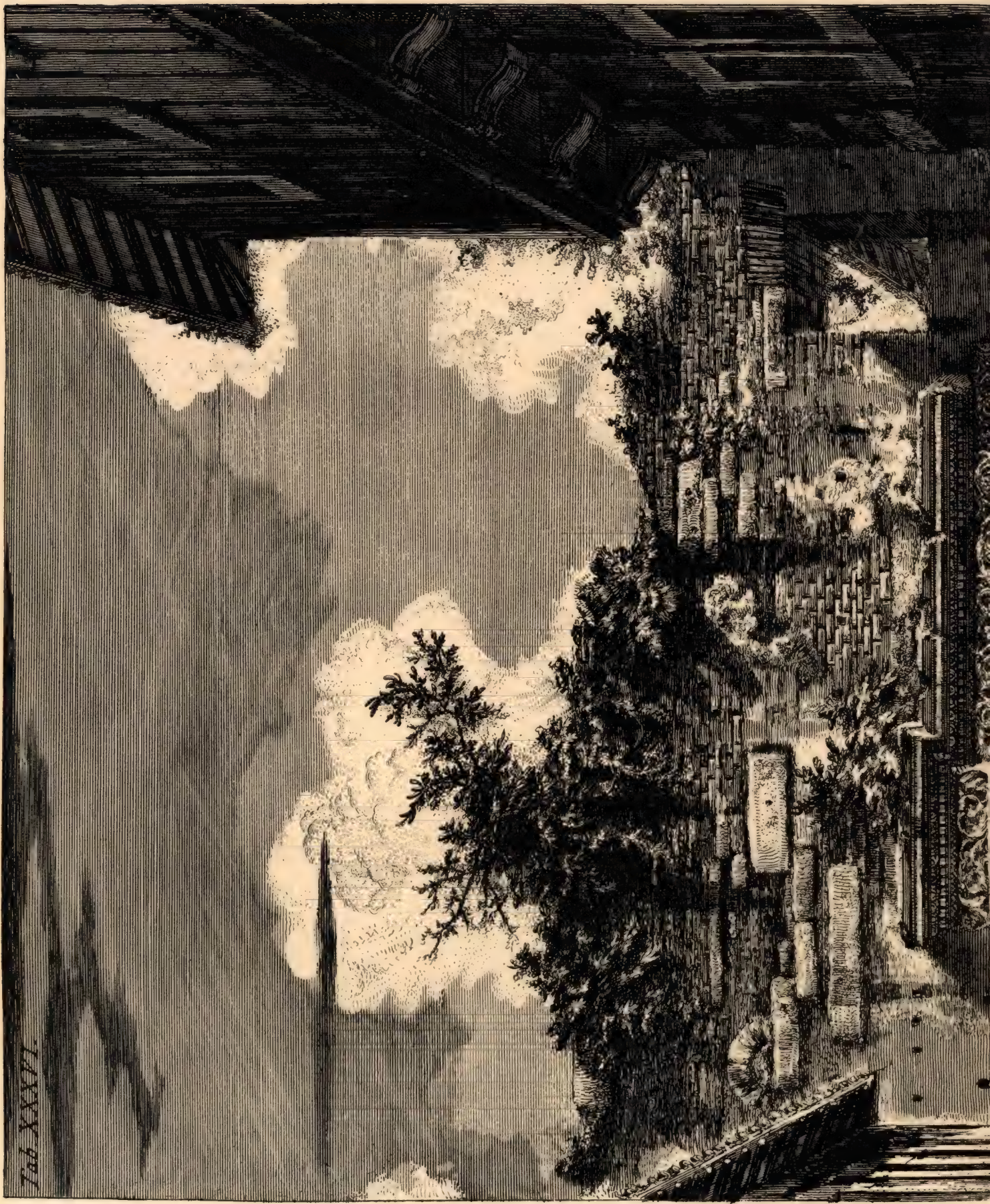
Another grille is shown on page 359, that from a window in the Scuola di San Giorgio, Venice. It is a particularly typical example of wrought iron expression, as shown by the detail drawing. The parts are held together by bands, not riveted as in cast iron. The frieze between the capitals offers a pleasant variation from the lower portion, while the lunette is an achievement all by itself.

*Editors' note: The next installment will treat of the characteristics of wrought iron in the forms best suited to it.*



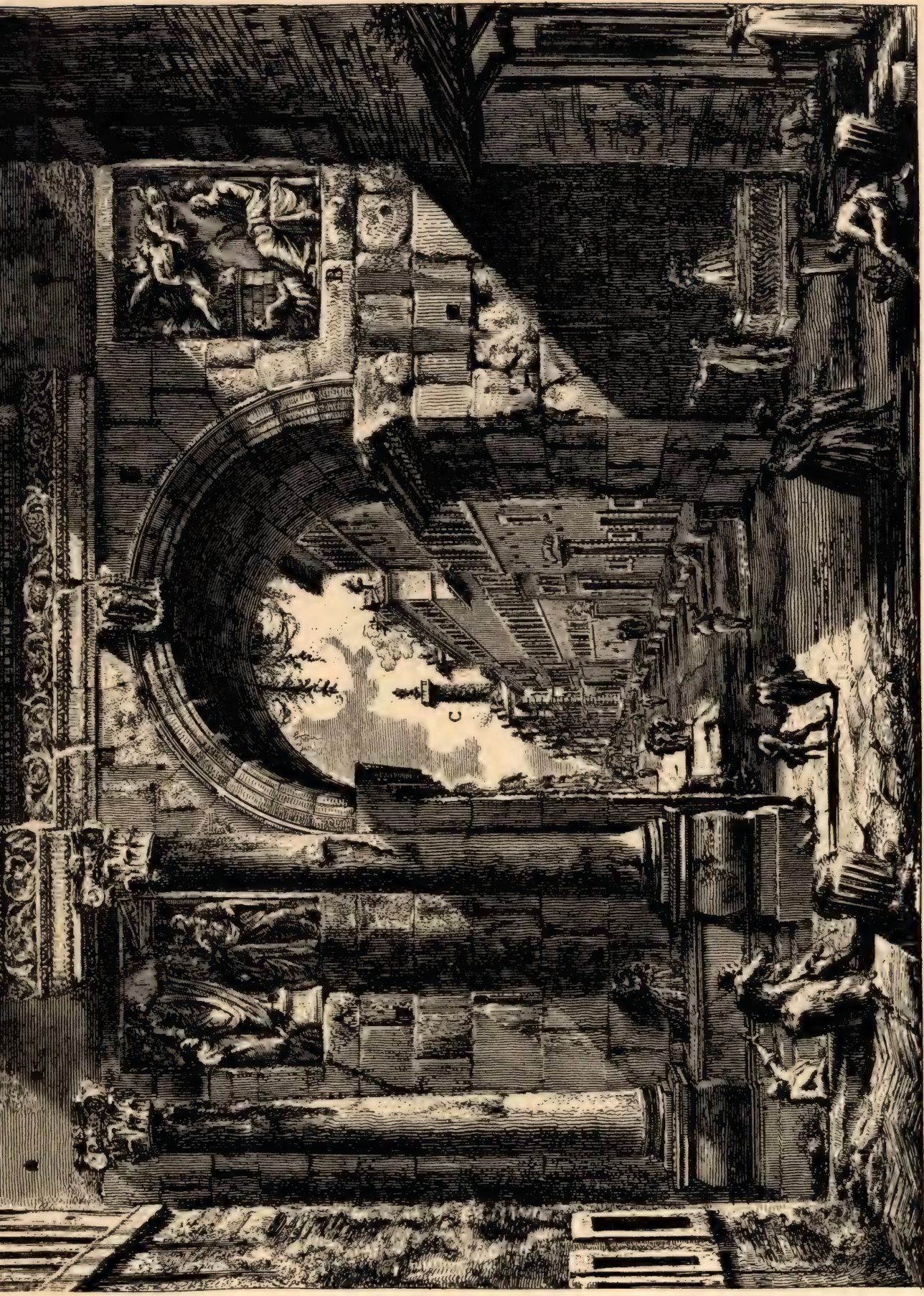






Tab XXXVI.



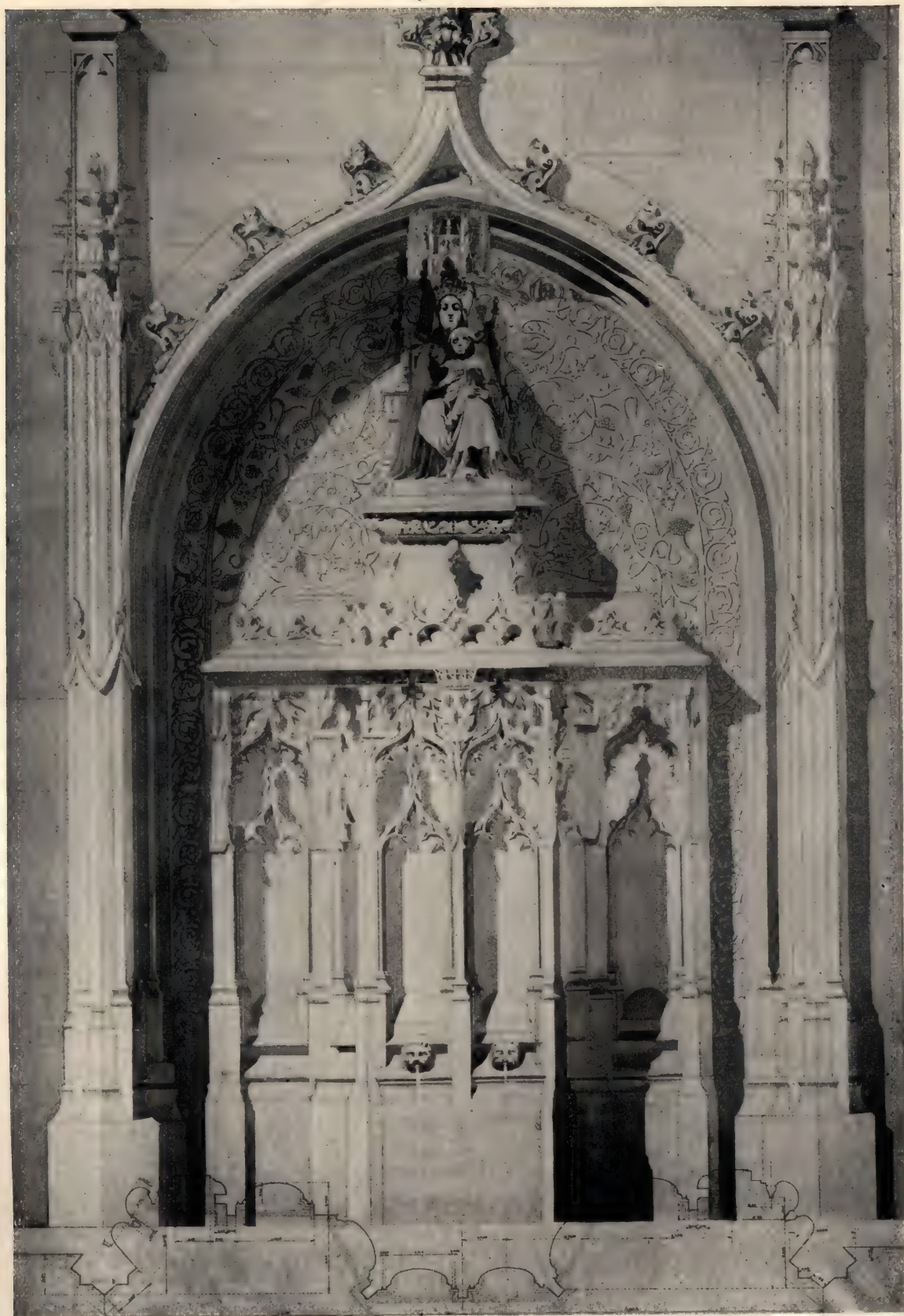


*Arcus Marci Aurelij Imp. ex ejus archetypis, efformatis antequam  
destrueretur ob ampliandum hippodromum. A, B Anaglyphi qui asservan-  
tur in aedibus Capitolinis. C Columna Cochliodes ejusdem Marci  
Vide indicem ruinar. num. 29.*









MEASURED DRAWING BY MAURICE GAUTHIER  
FONTAINE DE LA CROSSE AT ROUEN



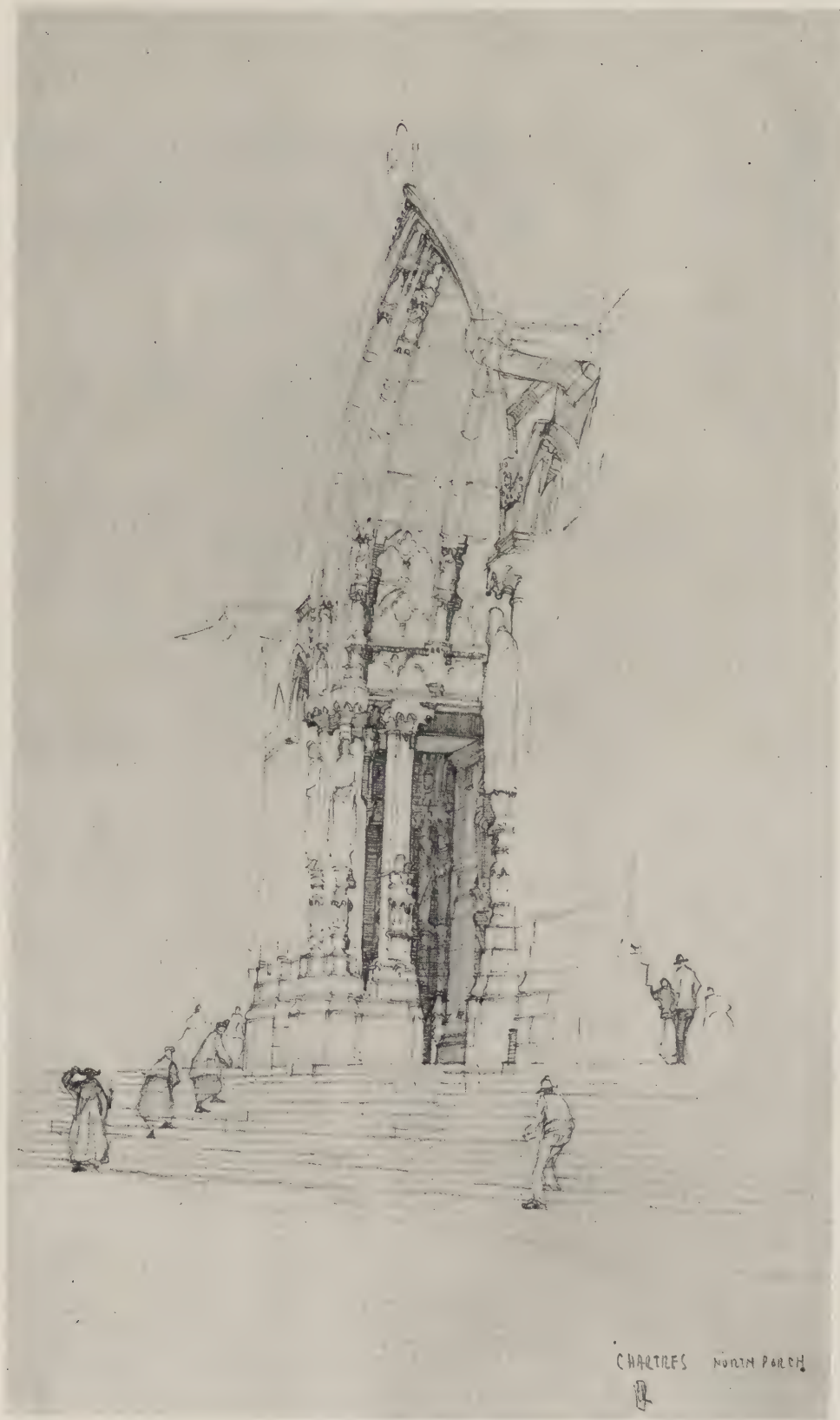
PLATE XVIII

VOLUME VII

NUMBER 6

*The measured drawing shown in this plate was  
made by Gauthier as a student in the atelier  
Rédon of the Ecole des Beaux Arts.*





DRAWING BY LOUIS C. ROSENBERG  
NORTH PORCH, CHARTRES.



PLATE XIX

VOLUME VII

NUMBER 6

*Louis Rosenberg's work is well known to the readers of Pencil Points and needs no comment. The sketch shown in this plate was done in 1924 on his last sketching trip abroad.*





BAS-RELIEF BY EDMOND R. AMATEIS  
MADONNA OF THE JEWEL



PLATE XX

VOLUME VII

NUMBER 6

*This piece of relief sculpture, the work of Edmond R. Amateis, was executed when he was in Rome as a Fellow of the American Academy. The panel is carved in white Serravezza marble and the beautifully designed frame, also the work of the sculptor, is in gilded and polychromed wood. The size of the panel is 21" x 29".*





CHARCOAL DRAWING BY F. HOPKINSON SMITH  
ST. ETIENNE DU MONT, PARIS



PLATE XXI

VOLUME VII

NUMBER 6

*F. Hopkinson Smith, whose versatility enabled him to achieve fame both as a writer and as a painter, worked in many mediums. This plate shows one of his charcoal sketches done on gray paper with a few touches of gouache for highlights. The drawing is reproduced through the courtesy of Stanley A. Sweet.*





RENDERING IN OPAQUE WATER COLOR BY HOWARD GREENLEY

*Size of Original 11¾" x 16¼"*

*Show Room for Colgate & Co., New York*

*Howard Greenley, Architect*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR



# HOWARD VAN DOREN SHAW

MAY 7, 1869—MAY 7, 1926.

HOWARD VAN DOREN SHAW was born in Chicago, Ill., May 7, 1869, the son of Theodore A. Shaw and Sarah (Van Doren) Shaw. He received his B. A. degree from Yale University in 1890 and from the Massachusetts Institute of Technology in 1893. He married Frances Wells of Chicago in 1893, and started to practice his profession in Chicago in the same year. He was a Fellow of The American Institute of Architects, a member of the executive committee of the Art Institute of Chicago, chairman of the Illinois State Art Commission.

Upon the fifty-seventh anniversary of his natal day, Howard Shaw started on his long journey into the Beyond. He was still young—young in years and in heart; but years and heart were ripe in experience and achievement. He was in his prime, and his joy in life and his enthusiasm had not paled. Why should they pale in one who was gifted as was he, and to whom the door of opportunity was ever opening. Such opportunities as came to him, however, do not come to one who has not met halfway those which preceded; and Howard Shaw met more than halfway the duties, responsibilities, and the opportunities which came to him.

Howard Shaw was born with a sense of values and of the fitness of things which seldom lapsed and which grew in fullness with the years. He had a strong sense of his obligation to society, and he realized that from him to whom much has been given, much will be expected. Much was given to Shaw not only of the material but of the spiritual, and in both fields he gave freely to his less fully endowed fellows. He looked for good and beauty in lives as in objects; and he found beauty in life, in nature, and in the works of man. He was blessed with a fine sense of humor which helped him over many a difficult pass. For one born to, and educated in, the conventions he possessed and exercised a highly individualistic

mind and mode of expression, and his work was highly characteristic. Even in his more important work he manifested his playful spirit, and in this work the evidences of his fine humor are not wanting.

Howard Shaw created many beautiful home surroundings; and his residences and gardens proclaim his joy in life, and in art as it touched the beauty of

life. He had a lovely home, both in its spiritual and material aspects; a talented wife with whom he enjoyed a rare companionship, and three lovely daughters to whom he was intensely devoted. These intimate facts of his life must be noted, for they colored his work, and other and outside lives were the better conditioned because of his own happiness. He was generous in nature and deed, and friendship irradiated from his personality. One cannot speak of Howard Shaw's works without speaking of the man; and one cannot speak of the man without considering his works, for the man is in and of them.

That vortex of human energy known as Howard Shaw has been dissipated; but the impulse throbs in ever-widening circles.

Those who have felt the thrill of the throb will not forget but must, perforce, relay the message into other lives. The work still stands radiating the spirit of the man. They are happy who felt the emanation from the person and still can feel it in the work.

It was fitting that The American Institute of Architects, whose highest standards he upheld so persistently and manfully, should recognize Howard Shaw's merits and should have conferred upon him, as it did at the convention which was just about to close its sessions at the time of his death, the gold medal of the Institute, the highest award in its power to bestow.

Irving K. Pond



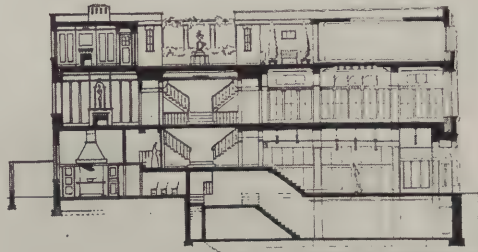
HOWARD VAN DOREN SHAW  
*Sylvia Shaw Judson, Sculptor*



# PENCIL POINTS



DESIGN FOR AN ARCHITECTURAL CLUB



LONGITUDINAL SECTION

ALL INTERIOR DECORATION TO BE OF PRECAST ORNAMENTAL PLASTER, WHICH HAS A BUFF COLOR IN THE FIRST & THIRD FLOORS AND IS TO BE LIGHTLY PAINTED IN THE SECOND FLOOR. PLASTER IN STAIR HALL TO HAVE WASH FINISH.

JACOBSON ANNUAL COMPETITION 1926

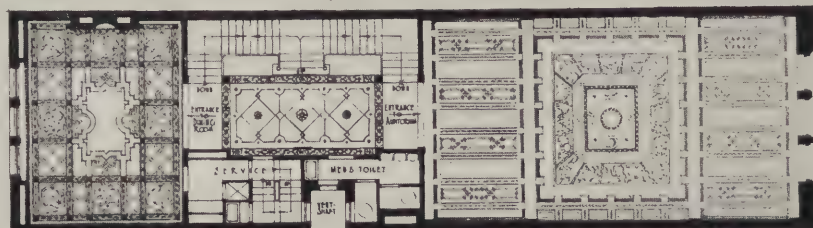
JACOBSON ANNUAL COMPETITION FOR 1926

JACOBSON ANNUAL COMPETITION 1926

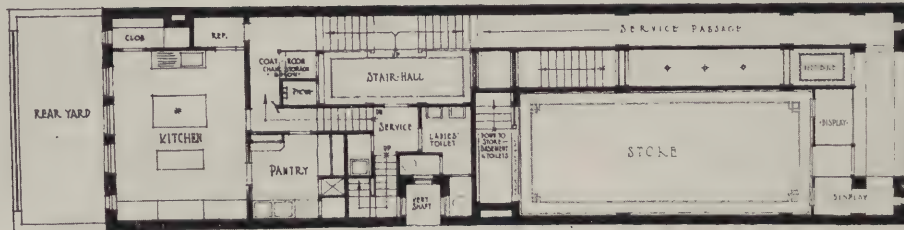
DESIGN FOR AN ARCHITECTURAL CLUB



THIRD FLOOR PLAN



SECOND FLOOR PLAN



FIRST FLOOR PLAN

PRIZE WINNING DESIGN, BY ALFRED KASTNER, NEW YORK CITY



# REPORT OF THE JURY ON THE JACOBSON ANNUAL COMPETITION FOR 1926

THE JURY FELT THAT requirements of the program made the problem one of the most difficult to solve correctly that has been presented in any competition of this character in recent years, but as the problems involved were exactly those which are presented to the practicing architect by his clients, they felt that the competition was therefore exceedingly interesting and the number of excellent solutions presented, surprising.

It is probable that no solution can fully meet all the requirements in an entirely satisfactory manner; the necessity of two entrances to the Architectural Club as well as one to the shop and a large show window would, if carried to a logical conclusion, result in an entire first story of glass and doors, a thing which is particularly undesirable as the first story of a club of dignified character. Some compromise between the necessity of properly expressing the main purpose of the building as an Architectural Club, and the necessity of providing a shop which would be reasonably attractive to a shop keeper was therefore inevitable, and in making the awards the success of the compromise was to a certain extent the determining factor, since there were a number of plans for the Architectural Club proper which would have resulted in an exceedingly attractive and perfectly practical building.

The Jurors were surprised to find such a high average of thoroughly workmanlike solutions of the problem among the drawings submitted, and while it is not unusual to find in this type of competition many schemes of considerable merit as regards exterior, it is not usual to find such intelligent thought devoted to the purely practical side of the question. There were at least nine sets of drawings which were very seriously considered for the awards and it was only by very careful balancing of the several features of façade, design of the Architectural Club, and treatment of the shop and entrances that it was finally determined to award the first prize to Mr. Alfred Kastner of New York City.

The elevation of this scheme was highly original and exceedingly interesting and, though treated with much freedom, was still of a type which the Jury felt would build in a satisfactory manner. The plan offered a complete solution to the problem, although perhaps not in the simplest manner, and the disposition of the various rooms in the Architectural Club made for convenience and pleasant occupancy of the building. The service arrangement both as to entrances and to service within the building, a very important factor, neglected in some of the plans, was in this thoroughly practical.

The second prize was awarded to Mr. James Edward Agengroad of Philadelphia, whose elevation was of good character and well composed even if somewhat too archaeological. The plan was simple and direct; the treatment of the shop was

adequate although the service entrance was not considered entirely satisfactory.

The third prize was won by Mr. Alfred Thompson Granger of St. Petersburg, Florida. The design of the exterior of this building was perhaps the most interesting of all those submitted, but in spite of the Jury's admiration for the façade it was not possible to award this contestant a higher place because of certain faults in the plan and a specialized solution of the service entrance. While the program did not specifically state that no alley way could be considered, several contestants assumed an alley way for service entrance, and while it may be thought by the contestants that the Jury lays too much stress upon a comparatively minor point, it must not be forgotten that the correct solution of this minor point involved very great difficulties as to the major points, and the contestant who did not adequately provide for service was at a very great advantage over those contestants who interpreted the program in its true sense, as a building on an inside lot. Mr. Granger's treatment of the shop front was interesting but one to which all merchants would object, and for these reasons the third place was the highest that the Jury felt could be given even to so interesting a conception.

Although the program did not call for the award of mentions, there were three sets of drawings which were of such great merit that the Jury felt especial attention should be called to them and for that reason have mentioned: First, Mr. S. M. Kurtz of New York City, who had a plan of usual excellence with very interesting interiors, but whose elevation did not fully express the character and quality of the building.

Second mention was awarded to Mr. Albert Sturr of New York City, whose general scheme was exceedingly good both as to plan and elevation, although the treatment of the shop front left much to be desired, and the stairway was distinctly forced. The Jury presumed that Mr. Sturr desired to make the interior a sort of museum of Architectural styles, but felt that a club house should be of a much more harmonious character than would result from such a confusion of schemes.

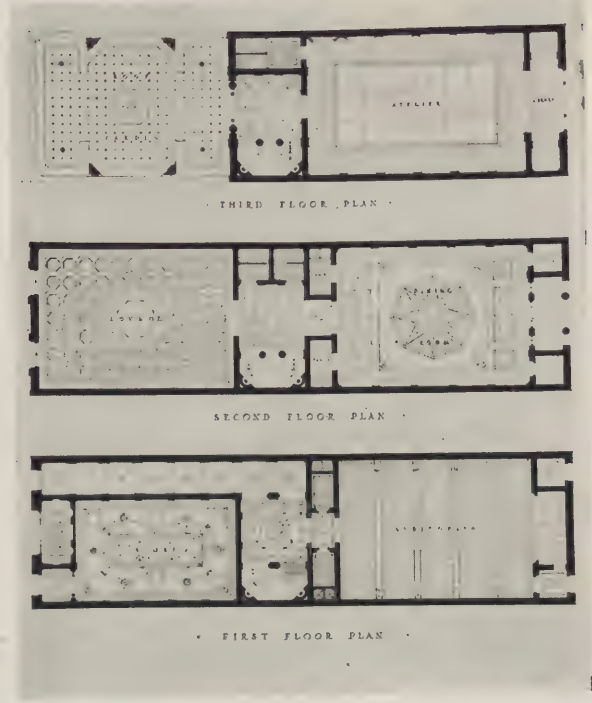
Third mention was awarded to Mr. F. J. Lippell of Buffalo, who presented perhaps the best treatment of the store front, and the difficult problem of service and club entrances, but the Jury believed that the plan of the building beyond the entrance was far too complicated especially in the arrangement of the stairway.

There were many other schemes submitted about which the Jury would have liked to speak, but since space does not permit, they desire only to express to the contestants as a body, their appreciation of their intelligence and ability.

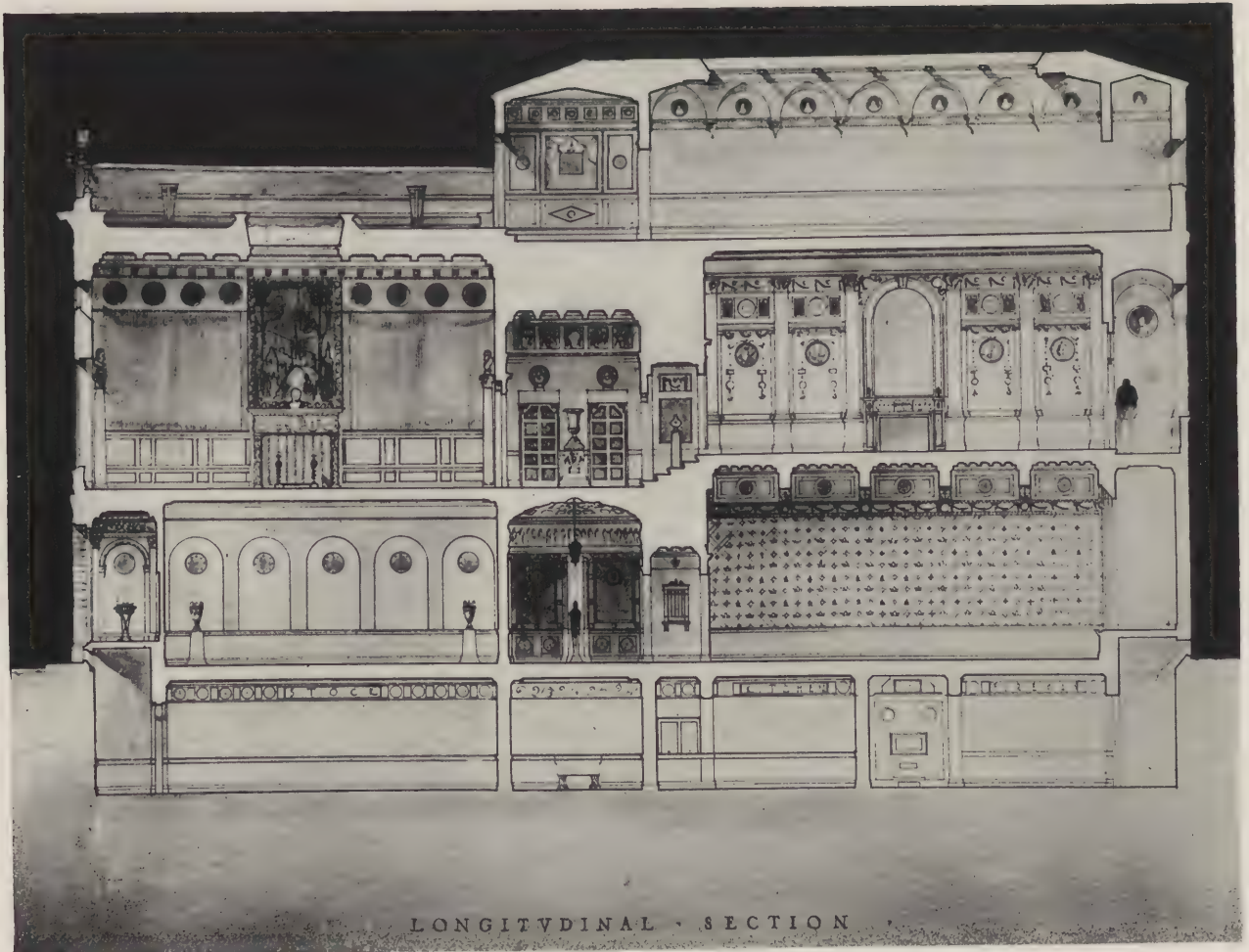
*Jury of Award* { AYMAR EMBURY II  
                          HOWARD GREENLEY  
                          RALPH REINHOLD



# PENCIL POINTS



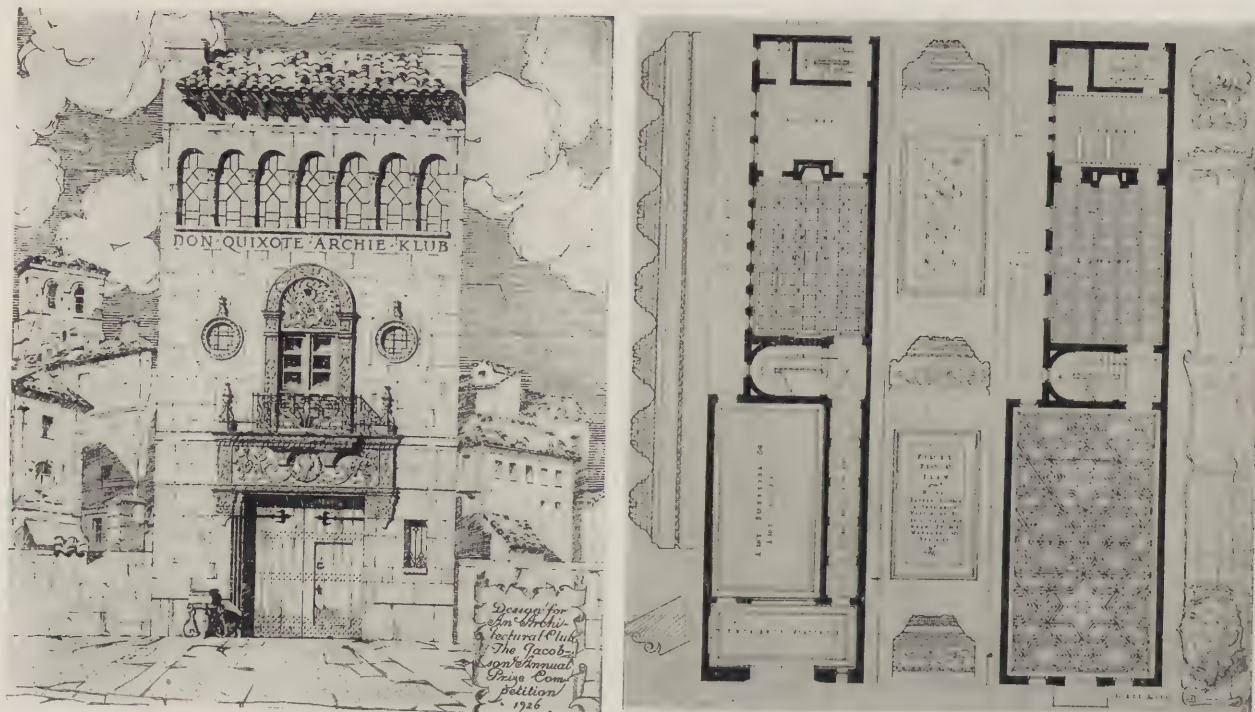
JACOBSON ANNUAL COMPETITION FOR 1926



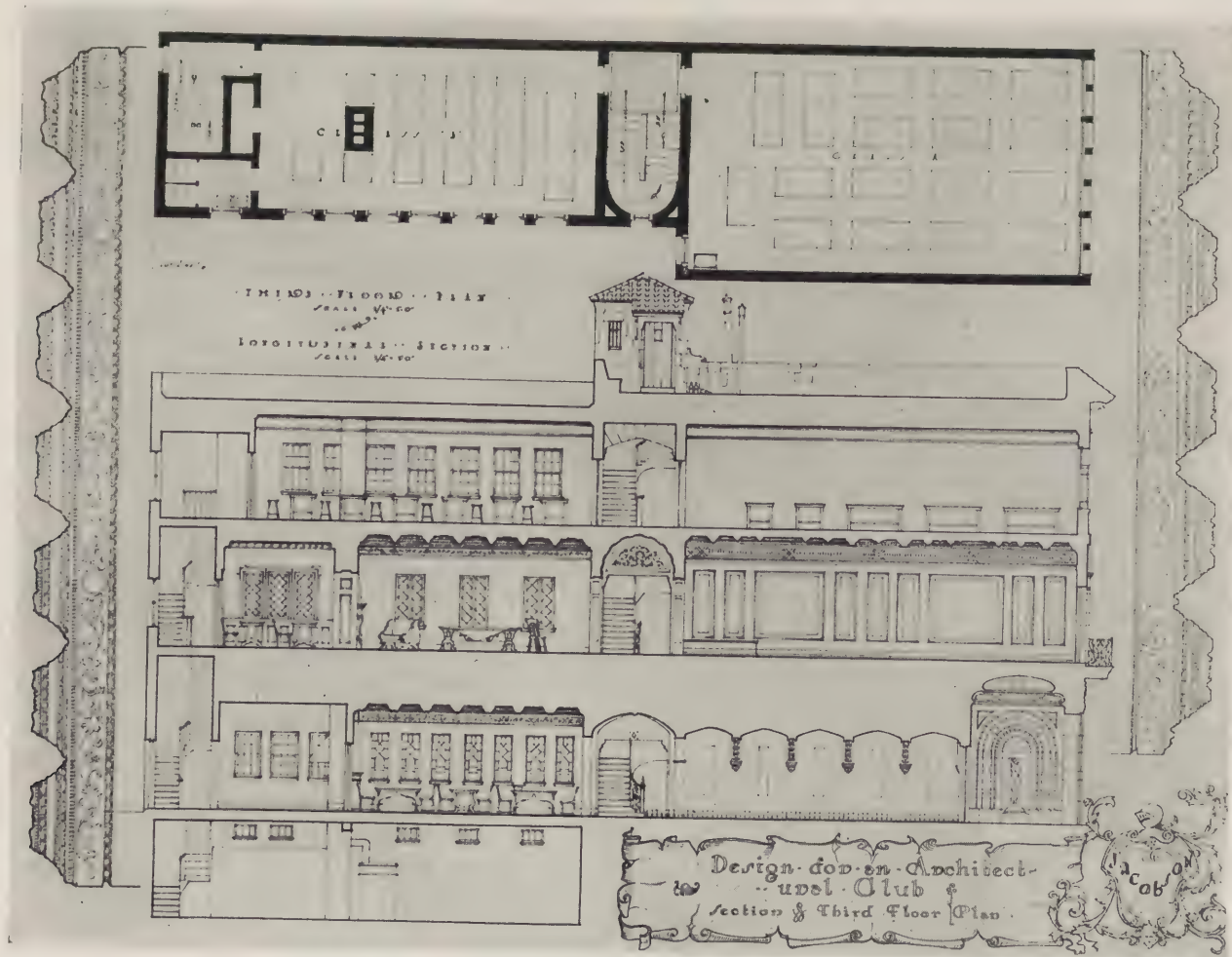
LONGITVDINAL SECTION  
SECOND PRIZE DESIGN, BY JAMES EDWARD AGENGROAD, PHILADELPHIA, PA.



# REPORT OF THE JURY



JACOBSON ANNUAL COMPETITION FOR 1926



THIRD PRIZE DESIGN, BY ALFRED THOMPSON GRANGER, ST. PETERSBURG, FLA.



PENCIL POINTS



PENCIL DRAWING BY LOUIS HECHENBLEIKNER  
SITE OF MADISON SQUARE GARDEN AS IT APPEARS TODAY





# WHITT LINGS

## THE NEW YORK ARCHITECTURAL CLUB, INC.

SOME VERY IMPORTANT DECISIONS were made at a recent meeting of the Board of Directors, among which, one in particular, should be of interest to all members, and especially to *prospective members*.

The Board, after considerable deliberation, has fixed an initiation fee of \$5.00 for all new members making application for membership in the club on and after July 1st, 1926.

There seems to have been some misunderstanding among the club members as to when their dues went into effect and for what period of time they applied. In order to clear up this point, the Board has gone on record with the following decision, and we hereby notify all our members to please note same, and be governed accordingly:

The fiscal year of the club is from July 1st to June 30th of the following year. The membership dues are \$10.00 per year, payable in advance either quarterly, semi-annually or annually. A quarter year will be the minimum time period in calculating dues. All members will pay dues starting with the quarter in which their membership application is dated, and will run from then on continuously on the yearly basis, regardless of when the fiscal year begins and ends. Any of the present applicants who shall not have paid in at least a part of their dues by July 1st, 1926, after having been notified to do so, *will be considered as new members* after July 1st, 1926, in which case they will have to pay the \$5.00 initiation fee.

The club rooms are fast nearing completion. At the present writing, the lounge room and entrance foyer wall treatment is finished, and the result is surprising, to say the least. The walls are done in "Craftex," finished with a very effective Spanish plaster texture. A coat of very light yellow paint was applied over this as a primer, after which the glaze was applied, starting at the base of the wall with a warm reddish-brown, fairly dark, and grading lighter in tone toward the ceiling, where it finishes in a very light yellow-pink at the cornice, giving the room a very cozy and warm feeling. In the very near future everything should be finished, when we look forward to some sort of a house warming party, and some very enjoyable times thereafter.

The Atelier part of the club is coming along in good shape, about everything that may be required having been contracted for and being delivered right along, so that by the time this number of the magazine is issued, we expect the Atelier to be complete in every detail, making it the best equipped Atelier in New York, where it will be a decided pleasure for our boys to work, nothing having been spared, and practically everything in it brand new. In previous numbers we have given quite complete accounts regarding the management of the Atelier, the Patrons, the ideals and aims.

## BOWLING LEAGUE DIVISION

The Architectural Bowling League of New York finished the tournament schedule for 1925-26, on Thursday, April 29, ending with the 3-man team tournament.

This tournament ended in tie for first place between the offices of Donn Barber and William H. Gompert, each team having won 16 out of the 19 games scheduled. To decide the championship in this class, it was decided to have these two teams bowl 3 games, the total pinfall to decide the winners. The deciding games were rolled on Monday evening, May 10th, on Thums Alleys, in which the Donn Barber team brought in a decisive victory.

Team high score was rolled by the office of McKenzie, Voorhees & Gmelin, who scored 601.

The individual high score medal goes to Chas. Ackerman,

of the McKenzie, Voorhees & Gmelin team, for a score of 253.

The individual average medal for this tournament was won by M. R. Johnke of the Donn Barber team, who averaged 187 in 19 games.

Rex D. Read, of the Cass Gilbert team, is the first winner of the beautiful new trophy presented by the Architects' Samples Corporation to the individual all-around champion of the League for the entire season. This is a very beautiful solid silver cup standing 22 inches high, and will become the permanent property of the one that wins it the third time, not necessarily consecutively. Rex's name will be engraved on this trophy, and as a memento, he will also receive a handsome silver platter, which is also presented by the Architects' Samples Corporation of this city.

HENRY SASCH, *Secretary*,

## THE ARCHITECTURAL TENNIS TOURNAMENT OF NEW YORK

ARRANGEMENTS HAVE BEEN made to reserve courts for the first round matches, which will be played on the 19th of June.

The Championship Singles for the William Adams Delano Trophy is limited this year to sixty-four entries.

The draw in the Championship Singles will be seeded with Kayser, Krats, Lawson, and McBurney, semi-finalists in the 1925 singles.

FEES—for the Singles are \$3.00 per entry.

Entries will close Monday, June 14th, at 5:00 P. M.

PRIZES—The winner will obtain possession of the Delano Trophy for one year and will receive a 14 kt. gold medal.

Gold filled medal to runner-up.

2 sterling silver medals to semi-finalists.

4 bronze medals to winners of qualifying round.

### CONSOLATION SINGLES

All those losing their first round matches will be automatically entered in the Consolation Singles.

Sterling silver cup to winner.

Sterling silver medal to finalist.

2 bronze medals to semi-finalists.

Any players defaulting their first round matches in the Championship Singles, will not be eligible for the Consolation Tournament.

Additional entries in the Consolation Tournament will be \$2. per man.

These entries close Monday, June 21st, at 6:00 P. M.

### DOUBLES

PRIZES—2 sterling silver cups to winning team.

2 sterling silver medals to finalists.

4 bronze medals to semi-finalists.

Teams to be composed, where possible, of two men from the same office. Where this is impossible, an individual entry may be made, and a partner assigned by draw from the other individual entries.

Entries for doubles close July 6th.

FEES—Entry fees—\$5.00 per team.

Individual entry—\$2.50.

The draw in the Doubles will be seeded with Kayser and Faulkner, and, McBurney and Terhune, finalists in the 1925 Doubles.

The cups and medals will be displayed in the lobby of the Architects' Building, 101 Park Avenue, through the courtesy of the Architects' Samples Corporation.

Address inquiries and checks to: A. F. Darrin, *Chairman Architectural Tennis Tournament of 1926*, Room 1406, 247 Park Avenue, New York City.





PENCIL RENDERING BY J. MACGILCHRIST

*A Shooting Lodge for Dr. and Mrs. J. A. Vietor, Hampton Bays, L. I. Chas. M. Hart, W. Lynn Patton, Arch'ts.*

#### THE AMERICAN ACADEMY IN ROME

From a letter received by C. Grant La Farge from Gorham P. Stevens, Director, we quote the following:

"OUR LARGE CLASSICAL SCHOOL has shrunk to just one student in Rome; all the rest, professors included, are away traveling. Professor Van Buren and his party are now in Greece, and about half of the members of the School of Fine Arts are also traveling.

"The list of our visitors is, on the other hand, unusually large, for this is the height of the season for American travelers. Mrs. Prentice of Princeton, of the Garden Club of America, is here; she is the chairman of the committee which is trying to raise an endowment fund to maintain a second Fellow in landscape architecture at the Academy. A brother of Ex-President Taft has called, and so has Professor George H. Chase, of Harvard, and Mrs. Hawes who conducted important excavations in Crete some years ago. Then we may mention the visits of Mr. Abraham Flexner of the Rockefeller Fund, of the sculptress Mrs. Vonnob, and of Mr. and Mrs. Herbert L. Satterlee.

"Mr. William R. Mead is in Northern Italy, on Lake Garda.

"Among the last lectures in the Classical School was one of especial interest by Miss Lawler, Fellow of the Academy. Her subject was the Greek dance; and a few days after the lecture she favored us with a physical demonstration at the Villa Aurelia. The dance, which she herself had reconstructed from a study of Greek sculpture, vases etc., was exceedingly interesting and graceful.

"The Academies in Rome affected by the proposed new taxes have made a combined protest. The American Ambassador sent an excellent *note verbale* to the Ministry of Foreign Affairs.

"Mrs. Stevens and I expect to leave for an archaeological congress in Syria on Friday next. We have received reassuring telegrams from both Jerusalem and Beirut. We expect to see everything on the program, with the exception of Damascus. Palmyra and Baalbek are the chief places of architectural interest to me."

#### A CORRECTION

The sketches published on pages 316 and 317 of the May issue were made by Mr. Chrystie Douglas of Montreal, Canada, and not by Mr. Ralph Warner Hammett to whom they are erroneously attributed.

#### THE T SQUARE CLUB OF PHILADELPHIA

THE ANNUAL MEETING of the T-Square Club was held at the club house Wednesday evening, May 5th, 1926. Before the meeting, dinner was served and as our guest we had present Mr. Howard Strong of the Regional Plan Federation who, after the business session, engaged in a most helpful talk on Regional Planning and its growth. After the talk a lively and helpful discussion ensued making the evening one of note for those present.

The following officers were elected:

President .....	Paul P. Cret
1st Vice-President .....	Roy F. Larson
2nd Vice-President .....	Louis F. McAllister
Treasurer .....	Roy Banwell
Secretary .....	Henry G. Rieber
Director .....	George Daub

The club is looking forward to an active year with increased activities in all fields. The Grub Club continues to serve excellent lunches daily which are well attended.

The ATELIER which is the most important field of club endeavor has, through the able leadership of Mr. Grant Simon, nearly completed a most successful year and we hope to find in its list of members for the coming season many interested young men ready to take up the work and carry on in the usual fashion.

The present year showed an increase in membership greater than for many years past and the award of scholarships to four students of the University of Pennsylvania.

The Exhibition Committee, with Harold M. Saunders as chairman, showed the club what could be done in the way of many and varied exhibitions which decorated the club house walls throughout the entire season.

#### BOOKS WANTED

THE PUBLISHERS OF PENCIL POINTS would like to hear from those prepared to submit manuscript for books suitable for publication in the PENCIL POINTS' LIBRARY. It is not necessary that the author have an established reputation as a writer as we are quite as willing to consider copy from those who have never had their work published as from those who have.

What we especially desire are books which will primarily be helpful to the great body of architectural draftsmen of the country. So if you have a book entirely or partly completed, or even an idea and outline for a book not yet started, we shall be pleased to consult or correspond with you concerning its publication.





WATER COLOR RENDERING BY J. MACGILCHRIST

*Hotel and Cottages on Lake Winnepesaukee at Wolfeboro, N. H. Chas. M. Hart, W. Lynn Patton, Arch'ts.*

#### EXHIBITION OF THE ARCHITECTURAL CLUB OF NEW HAVEN

CURRENT CONNECTICUT ARCHITECTURE was representatively presented in the Seventh Annual Exhibition of The Architectural Club of New Haven, held in the Trowbridge Mansion, New Haven, for two weeks beginning April 17. Work lent by thirty of the leading architects of the state was on view. Despite the rather closely circumscribed area from which exhibits were available the show was amazing in its appeal to both the public and to members of the architectural profession.

Spacious, high studded rooms, and the wide halls of a fine old city residence provided a setting of unusual charm in which to hang the collection. The opportunity all this afforded was made much of in the arrangement of the exhibits, for they were so grouped as to sustain interest throughout.

While the annual shows of the New Haven Club are primarily designed to exhibit the work of Connecticut architects it should be made manifest even to the casual visitor, that in this one at least, some effort was expended toward achieving educational value. For example, in addition to the work of the Connecticut architects there was on view some typical designs and photographs of completed buildings by such well known architects as Delano & Aldrich, John Russell Pope, Thomas Hastings, and Taylor & Levi of New York, which offered a logical basis of perspective in viewing the other exhibits.

Of distinct educational value too, was the large and varied collection of decorative elements and material shown. This included stained glass windows, mosaics, hand forged iron, pottery, tapestries and other fine fabrics from the ateliers of such representative houses as: Willet's Studios, Philadelphia; Charles J. Connick, Boston; Tiffany Studios, New York; The George Hardy Payne Studios, Paterson; Ravenna Mosaics, Inc., New York; Fulper Potteries, Flemington, and Heinigke & Smith, New York.

Stressing the importance of architectural quality in designing small houses the Exhibition Committee again this year conducted a competition for small house plans in which prizes amounting to \$800. were distributed. It was provided that the designs entered be for houses of concrete wall construction, and the collection of plans obtained formed one of the interesting features of the exhibition.

For the second time since it was established by the Club, the Leoni W. Robinson Memorial Medal for excellence in architecture was awarded. This year the jury, headed by Prof. Sheppard Stevens, Department of Architecture, Yale University, was unanimously of the opinion that the medal be given Orr & del Grella, architects, of New Haven. The award of the jury has the general approval of both the public and of the local members of the architectural profession. The jury also unanimously recommended that Honorable Mention be given Theodate Pope, (Mrs. John

W. Riddle), Farmington, for her work as shown in this exhibition, Avon, Old Farms, and to Walter John Skinner, Stamford, for his Hinks Bros. Banking House, Bridgeport.

Among others of the architects whose work was on view were: Delbert K. Perry, New Britain; Charles S. Palmer, New Haven; W. F. Brooks, Hartford; Butler & Provost, Stamford; Alfred W. Boylen, New Haven; A. Raymond Ellis, Hartford; Brown & Von Beren, New Haven; Lorenzo Hamilton, Meriden; Joseph W. Northrop, Bridgeport; Joseph A. Jackson, New Haven; Sunderland & Watson, Danbury; Whiton & McMahon, Hartford; Norton & Townsend, New Haven; Charles Wellington Walker, Bridgeport; Theodore O. Appel, New Haven; Raymond Percival, Forestville; R. W. Foote, Jacob Weinstein, Walter R. Shiner, Harold H. Davis, New Haven.

The collection of designs by students of the Department of Architecture, Yale University, many of which had been awarded medals by the Beaux Arts Institute, contributed interest to the exhibition.

In the second competition for small house designs conducted by the Exhibition Committee, The Architectural Club of New Haven, as a feature of the Club's annual exhibition, distributed cash prizes amounting to \$800. The jury of award was made up of the following named architects: Horace B. Mann, New York, Theodate Pope, (Mrs. John W. Riddle) Farmington, Conn., and Charles E. Cutler, Westport, Conn.

Robert L. Walldorff, New Haven, was given first place, H. Story Granger, New Haven, second, and Elbert J. Richmond, third. The four remaining prizes were awarded without place.

Mr. Walldorff, whose design sent to the Club's competition of last year was given an Honorable Mention, is a native of Olean, N. Y. On completing his studies in the department of architecture at Syracuse, Mr. Walldorff entered the office of Dwight James Baum, New York, and continued there for two years.

On severing his connection with the office of Mr. Baum, Mr. Walldorff went to New Haven, Conn., where he is now associated with the office of Charles Scranton Palmer.

#### ROME PRIZE COMPETITION IN ARCHITECTURE

IN THE PRELIMINARY COMPETITION for the Fellowship in architecture the problem was the designing of buildings for a School of Fine Arts in a University. As a result of this competition the jury selected the following as final contestants: C. D. Badgeley (Columbia), D. V. Freret, (Cornell), H. F. Pfeiffer (Yale), P. F. Taylor (Princeton), V. Viscariello (Armour Inst.), J. W. Wood, Jr. (Harvard).

The final competition will close on May 15th.

Fellows appointed in other branches this year are the following: in classical studies, John Day, Frederick La Motte Santee and Lillian Starr; in musical composition, Robert L. Sanders; in painting, Deane Keller; in sculpture, Joseph Kiselewski.





THE ARCHITECTS' MAY PARTY

### THE UNIVERSITY OF MICHIGAN

THE STUDENTS OF ARCHITECTURE at the University of Michigan gave their Annual May Party on Friday, May 7th, in the Barbour Gymnasium. William E. Preston's design—an under-sea dream world—won the competition for the decorative scheme for the party. The design was selected as the best from a score or more by the architectural faculty and the idea was carried out by the whole student body working under the direction of Ben Wyatt.

### SAN FRANCISCO ARCHITECTURAL CLUB

A BANQUET FOR THE MEMBERS of the Club, as well as members of the profession not belonging to the Club, heralded the opening of the new quarters of the San Francisco Architectural Club at 523 Pine Street. A comparatively large attendance was enjoyed, and an evening was spent of which might be said, "a good time was had by all." This evening was the initial opening of the Grand Opening Week, the remainder of the week being spent in educational and social affairs, climaxed by a dance given for the members of the Club and their friends.

Now that we are established, and have an incentive for Club spirit, "Art" Janssen has instigated a Membership Campaign which we feel sure will prove well worth the time and effort of those members entering into the spirit of it. We are looking for big results!

The "Beaux Arts" activity is developing in our Atelier. The members are taking advantage of our new quarters, and will, no doubt, all be humming throughout the season. With the results of this season's work, we hope to have a greater number of "Class A" men in the beginning of the Fall Season.

The resignation of two of our active students was necessitated by their leaving San Francisco. Ed. K. McNinch, one of them, is now in Sacramento where he has joined Starks & Flanders, former members of our club, who are now the correspondents for the "Beaux Arts." Fritz Kruger, the other member, left to join Fred Kramer in New York, where he is developing skyscrapers for York & Sawyer.

News from two of our former students has been received lately. Jack Geering, who is employed by the Peruvian Government, developing Peruvian school buildings in that country, has reported that he is thoroughly enjoying his experience in South America. Word has been received from Orin Bullock, who is studying at Harvard, to the effect that his studies there are most advantageous and that he is getting the most out of them.

### GEORGE G. BOOTH FELLOWSHIP AWARDED

THE GEORGE G. BOOTH TRAVELLING FELLOWSHIP in Architecture of the College of Architecture, University of Michigan, has this year been awarded to LeRoy E. Kiefer, '25A, William A. Turnbull, '25A, and Livingstone H. Elder, '26A, dividing the honors of second place. The income of the Fellowship is \$1200, the winner being given considerable latitude of choice as to itinerary and the use of his time.

## PERSONALS

LEO STILLMAN, ARCHITECT, has removed his offices to 1993 Jerome Avenue, New York City.

WALTER EARLE BORT, ARCHITECT, has removed his offices to 201-203 Tucker Building, Clinton, Iowa.

CHARLES WELLFORD LEAVITT & SON, CIVIL AND LANDSCAPE ENGINEERS, have removed their offices to 285 Madison Avenue, New York City.

STANLEY MOYER PETERSON, ARCHITECT, has removed his offices to 231 17th Street, Wilmette, Ill.

FRANK A. MOORE, ARCHITECT, has removed his office to 607 Fifth Avenue, New York City.

FRANK A. ROOKE, ARCHITECT, has removed his offices to 12 East 41st Street, New York City.

MAY & HILLARD, ARCHITECTS, have removed their office to 607 Fifth Avenue, New York City.

ROSARIO CANDELA, ARCHITECT, has removed his office to 578 Madison Avenue, New York City.

ISADORE E. ALEXANDER AND ROBERT L. BRANDT have opened an office for the practice of architecture under the firm name of Alexander and Brandt, 332 State-Lake Building, Chicago, Ill.

FRED FORNOFF has opened an office for the practice of architecture at 88 North Front Street, Columbus, Ohio.

LAWRENCE A. KOETH has removed his offices to the Bailey Building, Hendersonville, N. C.

FREDERICK WALLICK, ARCHITECT, has opened a new office at Haines City, Florida.

M. C. KLEUSER, ARCHITECT, has opened a new office at 509 Republic Bank Building, Dallas, Texas.

HARBIN F. HUNTER, ARCHITECT, has removed his offices to 1111 Paden Pelton Building, Los Angeles, Calif.

H. P. KOLLINER, ARCHITECT, has removed his offices to Miami, Florida.

SIDNEY H. KITZLER AND LEO M. ZAMORY have formed the firm of Kitzler & Zamory, Architects, 4046 Broadway, New York City.

RITCHIE & WAKELING, ARCHITECTS & ENGINEERS, have opened an office for the practice of Architecture in the Coachman Building, Clearwater, Florida.

PAUL GASSER has removed his office to 13 Real Estate Building, Miami, Florida.

PAUL J. DUNCAN has opened an office at 703 Pacific National Bank Building, Los Angeles, Cal.



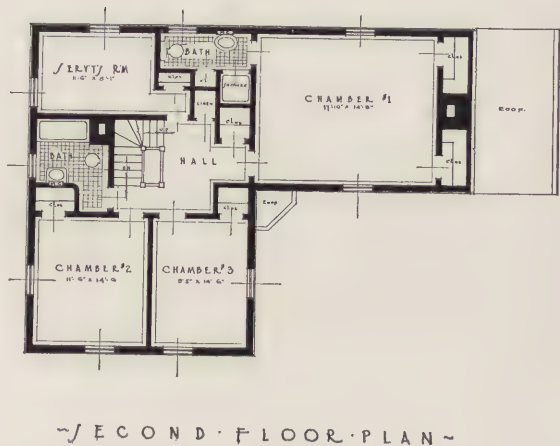
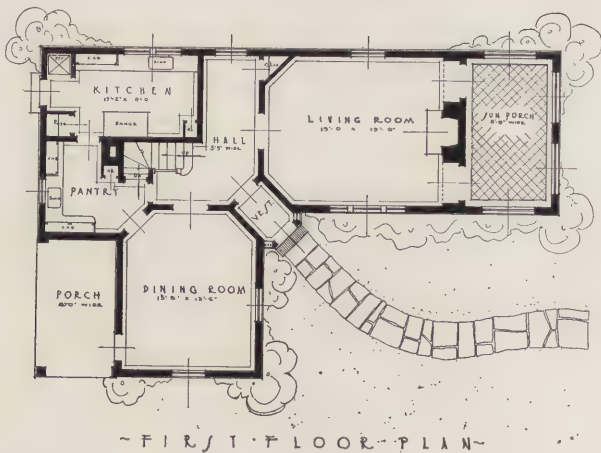
SKETCH BY P. R. WILSON, NEW YORK  
*Aqua Morta, Venice*



PENCIL POINTS



Perspective



HOUSE FOR CHARLES J. TULLY ESQ., NEW ROCHELLE, N. Y.  
EDWARD F. FANNING, Architect



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

THINGS ARE PRETTY NICE around here this month. Just about the right proportion of good sketches, amusing cartoons, verse, etc., together with quite a flock of letters from subscribers all around the place telling us that they like PENCIL POINTS better than ever and bidding us, each in his own way, to keep up the good work.

All of which makes us feel very expansive and mellow. There are so many days in the publishing business when things get all mixed up, not to say up-side-down, that we sympathize with the fellow who said that an optimist is a poor fish who doesn't realize how rotten everything is." But we don't feel a bit like that today and we can just let our optimism bubble up and sprinkle around until something goes wrong which, experience teaches us, is likely to happen almost any moment. So we draw a line right here and now!

The prizes this month go as follows:

Class 1. M. H. Gambee

This little item appears where the name of the winner in Class 2 ought to be. Our hands are up and we are calling loudly for mercy. All of which means that Howard D. Plary, Chicago, Ill., was duly awarded the prize for verse this month, but the copy got lost somewhere between the office and the printshop and cannot be found. We hope to print the poem next month.

Class 3. Walter J. Campbell

Class 4. No award

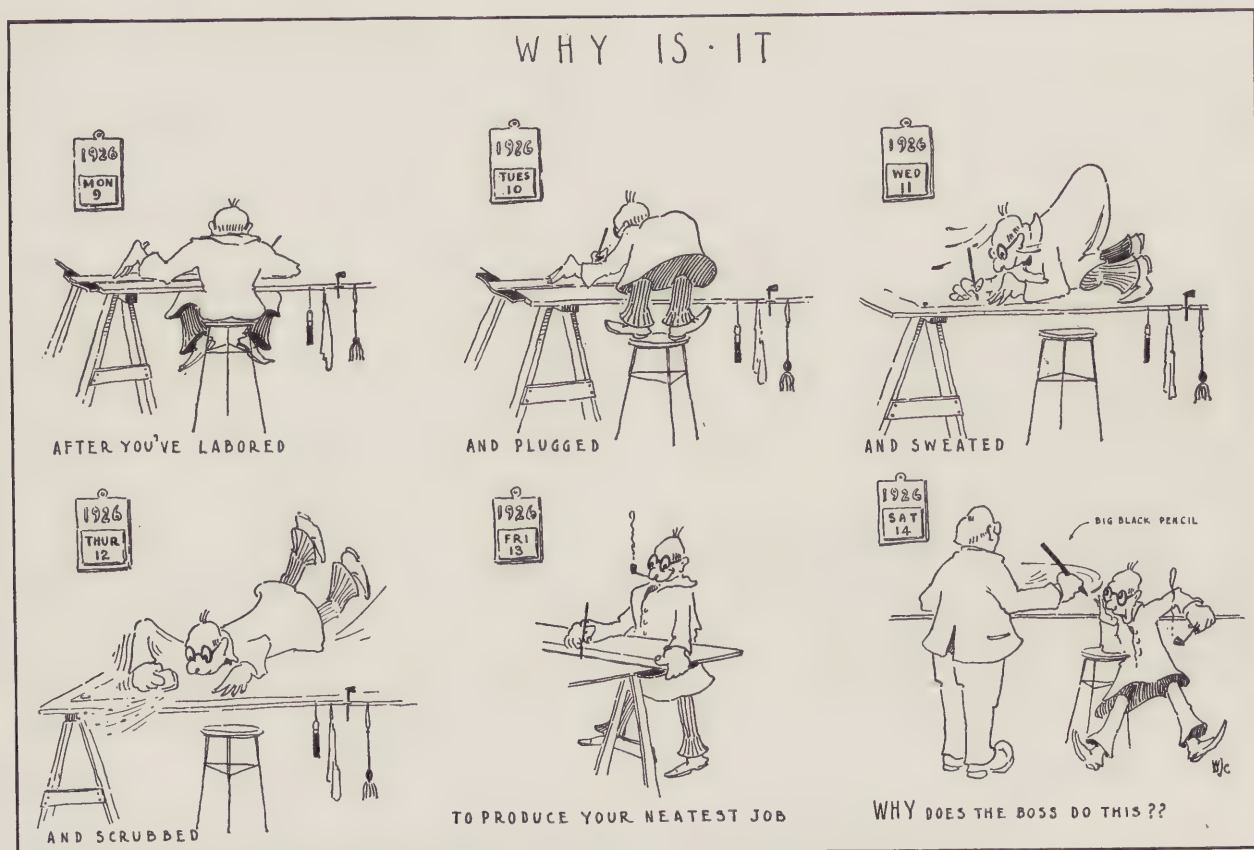
We have had several contributions come to us recently where the name of the competitor has appeared neither on the outside of the package nor upon the inside thereof. It is far safer to do both, for the cover is sometimes roughly handled in the mail and it is true that the envelope and contents are sometimes carelessly separated in this office. And then somebody feels that we have been discourteous or worse, which is not the way we want anybody to feel. So please mark everything plainly and we will do our best to keep things straight at this end.

ROGER B. DAVIS of West Durham, N. C., evidently has a flair for painstaking investigation for he sends us this:

Even in the sixteenth century one had to be careful of bootleg stuff—if the terra cotta frieze of the Ospedale del Ceppo, representing the Seven Acts of Mercy, is to be relied upon.

The sixth panel is entitled, "Thirsty and Ye Gave Me Drink," and the seventh, "Burying the Dead".

The drawing shown on Plate XXI, page 367, of this issue came to us entitled "The Glory of Chartres." It is, we think, really a sketch of a door of the church of St. Etienne du Mont in Paris. Can any of our travelled readers corroborate or confute our theory?



THIS CARTOON BY WALTER J. CAMPBELL, DANBURY, CONN., WINS THIS MONTH IN CLASS THREE

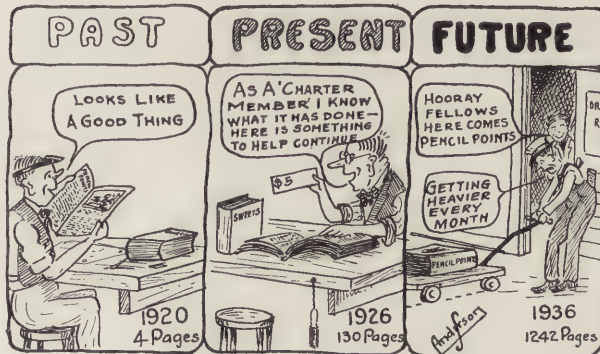


# HERE AND THERE AND THIS AND THAT

I find it convenient to rule in trimming lines on tracings and also indicate binding margin and perforations. To trim, lay the dry print on a strip of glass or zinc, then a red devil glass cutter and straight-edge make a fine trimmer.

S. L. Hatfield, Wagoner, Okla.

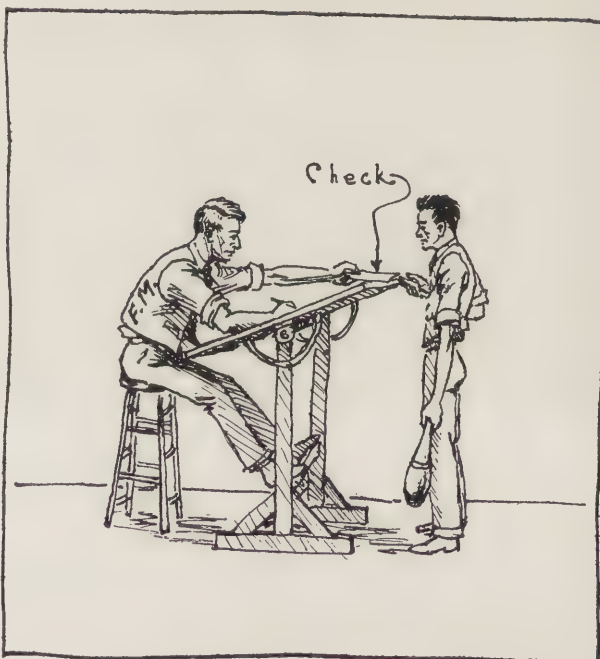
PETER S. L. HATFIELD of Wagoner, Okla., does his bit this-wise. Little useful suggestions like this may be valuable to many a draftsman so if you have discovered a better way of doing some little thing just make a note of it or a drawing, or write some kind of a piece about it and send it along to us.



Charter subscriber STEN ANDERSON, Lincoln, Nebraska, in renewing his subscription for three years expresses his feelings in the manner shown above. Thanks for the ad, Brother, but we hope PENCIL POINTS will never compete in size with Sweet's.



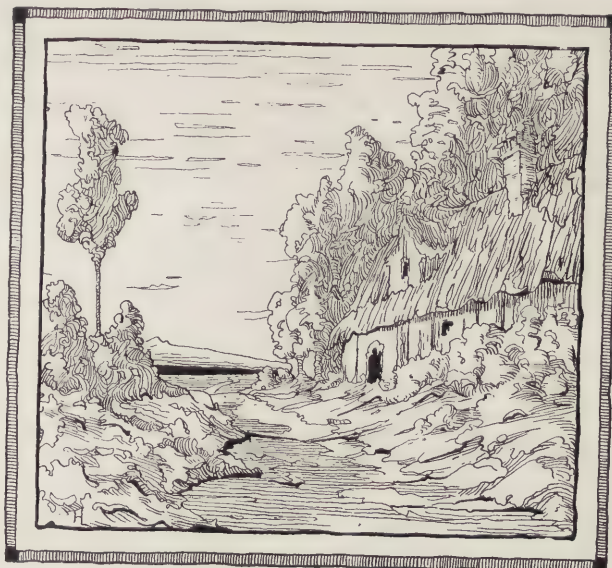
We have all heard about architects doing work at home. Here is a picture by our staff artist, DON GOSS, revealing the true situation.



Snapshot of PENCIL POINTER R. AU WERTER, Detroit, Mich., caught in the act of securing PENCIL POINTS subscription from F. Miller. Congratulations, say we.



PEN AND INK SKETCH BY WILBUR H. ADAMS



PEN AND INK SKETCH BY W. HONACK



PENCIL POINTS



"MONTEREY, MASS."—SKETCH BY M. H. GAMBEE  
(PRIZE—Class One, May Competition)



"OLD HOTEL AND MARKET, DALLAS"—SKETCH BY E. M. SCHIWETZ



HERE AND THERE AND THIS AND THAT



SKETCH BY RALPH WARNER HAMMETT



SKETCH BY M. H. GAMBEE



OLD FREEDOM'S BANK.  
TOLAHADGE, ILL.  
BANK ESTABLISHED AFTER NEGROES WERE  
FREED TO HAVE NEGRO SAVINGS.  
LATER THE NEGRO BANKERS WENT AWAY  
WITH SAID SAVINGS.  
NOW A TIN-SHED.  
GREEN STUCCOED WITH WOOD TRIM.

SKETCH BY ARNOLD R. SOUTHWELL  
(Actual size of original—One of a collection for an historical record.)



SKETCH BY ROBERT MOSLEY WILLIAMS  
East River



## PENCIL POINTS



NEW JERSEY TERRA COTTA COMPANY ENTERTAINS DRAFTSMEN FROM NEW YORK CITY OFFICES

WE THINK IT IS A VERY GOOD THING for the producers of the various materials required in building construction to establish and maintain cordial relations with the men in the architects' offices whose daily task it is to decide what materials shall be used and how they shall be employed in order that the best results in the finished building may be secured. The New Jersey Terra Cotta Co. evidently feels the same way about this for they recently invited a number of men from the New York offices to visit their plant. Here is a little story of what happened, together with a group picture of the crowd. We are sure that a good time was had by all and only regret that it was impossible for us to be among those present.

On Saturday afternoon, April 10th, approximately forty draftsmen representing various offices in New York City gathered at the offices of The New Jersey Terra Cotta Company where a buffet lunch was served; after which, they left New York in a sight-seeing automobile to visit the plant. During the inspection trip much interest was manifested by all in the manufacture of the material. After the inspection, the visitors together with the heads of the various departments reported at the Raritan Yacht Club, at which place a banquet had been prepared. A number of speeches were made by the visitors in which they expressed themselves as having had a wonderful afternoon of instruction and pleasure. William Tennant acted as toastmaster.

### SECOND ARCHITECTURAL EXPOSITION

The officers of the Architectural League of New York have announced that the annual League Exhibition next year, to be known as the Second Architectural and Allied Arts Exposition, will be held in the Grand Central Palace from February 21st to March 5th 1927. The exposition will be held in the interest of architecture and the allied arts and trades and will be confined to highly selected exhibits.

THE NEW YORK PUBLIC LIBRARY, 476 Fifth Avenue, E. H. Anderson, Director, needs, to complete its files, all the copies of PENCIL POINTS, Volume 3 (1922). Anyone having these copies available is invited to communicate with Mr. Anderson. Here is Mr. Anderson's letter:

We are in receipt of your letter of April 29th stating that it is impossible for you to send us any issue of the "PENCIL POINTS" earlier than that of the present month. As we feel, however, it is most important that we should have a complete file of your publication on our shelves, we are venturing to write again.

We do not wish to annoy you, but as it is our intention to preserve the file permanently, we feel that no effort should be spared to complete it. Do you think that an appeal through the columns of the "PENCIL POINTS" to your readers might be successful in bringing us these numbers? Many people who subscribe for magazines and papers save their copies until for lack of space or for other reasons, they are glad to dispose of them, particularly if they can find a depository where they will be useful and appreciated. As a result of this habit of saving publications, many old files come to the Library as gifts, both solicited and unsolicited, and it is seldom that publishers make an appeal for us to their readers without satisfactory results. Anything further you may do towards supplying us with the missing issues of "PENCIL POINTS", will, I assure you, be highly appreciated.

Very truly yours,  
(Signed) E. H. Anderson,  
Director

### COPIES OF PENCIL POINTS

#### WANTED AND FOR SALE

Henry A. Martin, 466 Garson Avenue, Rochester, N. Y., wants January, August, November 1924; January 1925.

Oscar A. Bayne, 84 Tooronga Road, Hawthorn, Victoria, Australia, wants a copy of April 1925.

Mr. O. A. Yuncen, c/o A. & K. Henderson, 352 Collins St., Melbourne, Australia, wants a copy of November 1925.

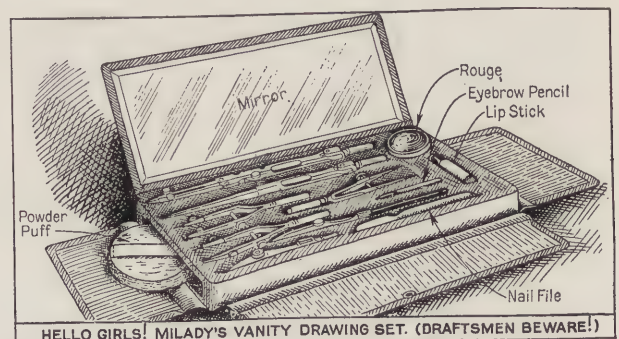
Arthur P. Moody, 4046 Charlotte St., Kansas City, Mo., wants a copy of January 1926.

J. Sandberg, Drottningatan 32, Linköping, Sweden, wants a copy of January 1926.

L. H. Levander, 14138 Young Avenue, Detroit, wants a copy of March 1926.

Mr. Lee Fuller, 1877 West 38th Street, Los Angeles, Cal., wants a copy of March 1926.

The University of Cincinnati, School of Applied Arts, Cincinnati, Ohio, is anxious to secure whole or partial volumes of PENCIL POINTS, bound or unbound, from the beginning to the present year. Address to the attention of Miss E. Abbott, Librarian.





# THE SPECIFICATION DESK

*A Department for the Specification Writer*

## SPECIFICATION WRITERS—PLEASE LET US HEAR FROM YOU ABOUT THIS PLAN

EVER SINCE PENCIL POINTS WAS started we have had a constant stream of requests from our readers to "do something" about specifications. Most of those who have so communicated with us have wanted a book on specification writing or some other reliable guide which would assist them in the preparation and checking of this most necessary document.

We have, from time to time, considered publishing a comprehensive and exhaustive work dealing with the whole specification problem, but frankly, when subjected to analysis, this has proved to be such a gigantic and complicated task that we have never been able to make arrangements to compile or secure the material for a satisfactory book. There are so many different ways of writing specifications, so many different types of buildings and materials and conditions to be considered that a work on this subject, which could be depended upon to cover any considerable percentage of the information which might be required at any time in any office, would have to be so very extensive and require so much time in the making that we have never gotten anywhere. Recently another plan of dealing with this matter has engaged our attention. The plan is to publish in book form, thoroughly annotated with comprehensive footnotes, the actual specifications which have been used recently in the offices of representative and capable architects.

The following types of buildings have been considered for a place in this series: a bank, a hospital, a church, a school, a large commercial building, a small commercial building, a theatre, a hotel, a large residence, a medium size residence, a small house, a large apartment, and a smaller one. Later on in the series, should there be a demand for them, specifications for other types of buildings such as country clubs, large public buildings, prisons, railroad stations and others will be added.

What we are especially anxious to know at this time is what the specification writers of the country think of this plan. In preparing and checking your own specifications would it be valuable to you to have on your shelves the actual specification documents which prominent architects are using in their work today? All of the architects with whom we have consulted, and of whom we have requested specifications for publication in this series have (with one exception) offered us the use of their specification documents, at the same time realizing that they are by no means perfect and that in permitting their publication their work would be open to the criticism of their brothers in the profession. Nevertheless they are so much interested in seeing present day specification standards improved that they are willing to place themselves in this position for the good of the cause.

It would be our plan to publish these specifications in book form with large and clear type and at a moderate price. Before publishing the first book, say a hospital or a bank specification, we would like to get a general idea how this plan is regarded by those of you who read this department so that we may make some estimate as to the size of the edition required, which of course would also have an important bearing on the publication price of the book.

Our theory of the whole matter is something like this. Today the specification work in very few offices is regarded as satisfactory. The drawings, sketches and photographs of buildings produced in good offices are liberally published for the benefit of all. The specification documents used in connection with these same buildings have heretofore never been available for those who care to study them. But an office possessing a file of these proposed specifications would have an opportunity to compare what others

are doing with their own practice, thereby improving this department of their work as time goes on. It is also probable that the architects who permit us to publish their specifications will profit from the broad minded view they are taking of the matter. It is quite to be expected that suggestions will be made to them for the improvement of various clauses, which will in turn lead to a higher standard than they have been able so far to attain.

So please sit down and tell us frankly what you think of this idea. How else is improvement in specifications to be brought about? How else may an architect or a specification writer who wants reliable information secure it on short notice? Almost everyone agrees today, so far as our experience goes, that taken all in all the specification is the least satisfactory and most troublesome part of a building operation, considered from the standpoint of the architect's office. Much of the trouble arising on jobs comes from a poor, incomplete, vague, or carelessly prepared specification. It would seem to us that a careful study and comparison of the specifications tentatively listed above would be useful in many offices and would tend in the long run to bring about greater satisfaction and greater economies in connection with most jobs.

We are just as anxious to hear from those who see no value in this plan as from those who think well of it. You cannot hurt our feelings by criticising what we propose to do. If this series of specification documents is not required by our field we certainly have no desire to go forward with the work, but if on the other hand it is felt that the step we propose would be in the nature of a valuable service we are right here to go ahead with it.

## SPECIFICATIONS

*By W. W. BEACH*

### PLUMBING AND DRAINAGE, PART XX.

PENCIL POINTS FOR MAY CARRIED the specifications for steam heating for our imaginary "consolidated district school" building. Next in natural order is the division of Plumbing and Drainage.

Approaching this subject, we find no single feature of building construction more circumscribed by local ordinances and State laws and none more intimately concerned with trade union regulations. To each of these must the designer and specification writer on a particular job pay the most meticulous attention in order that they may avoid subsequent discomfiture. Nor is it sufficient to declare that the work shall be done in accordance with best standard practice and in strict compliance with local ordinances and State laws, although this is obviously necessary. But one can easily delineate a construction or stipulate a condition *not* in such accord, thus creating a discrepancy potential with all sorts of trouble.

Again, is "a little knowledge a dangerous thing."

True, one can nearly always get out of a difficulty, either by "trading" or by use of "the big stick". But, however honest such procedure may be, both in intent and practice, however prevalent they may be alleged to be in ethical offices, nevertheless they are dangerous business, especially if noted by a too suspicious owner.

Many architects do not appear to realize how sensitive a thing is reputation, both as it attaches to the individual and to the profession at large. One cannot be too careful—and the time to begin is when the drawings and specifications are in preparation.



If one is rewriting a school specification from a previous issue, which, we will say, for example, was governed by conditions in a village in which plumbing installation was unregulated and where, for economy's sake, standard soil pipe was used throughout the building; and one therefore neglects to comply with that item of the plumbing ordinance in this new location which stipulates that all soil pipe under the basement floor must be "extra-heavy"; it goes without saying that "trouble lurks in the offing".

But, having made the mistake, how is one to proceed? Is the architect really entitled, (if the contractor tries to take advantage) to seek refuge either in the specification clause which states that discrepancies must be referred to the architect for decision, or the one which insists that the contractor shall comply with the local code in every particular? Supposing the contractor, not having previously done work in that bailiwick, actually failed to discover the error (assuming that the architect knew his business) or that, being aware of it, took it for granted that the school district could "get by" with a deliberate evasion of the code? Assuming any one of several reasons why the contractor might have originally based his bid on the cheaper material (whether he did or not), to what extent should he be made to suffer for a palpable oversight on the part of one who should be infallible? It's a mooted question.

The most uncomfortable phase of it is that, propounded to anyone outside of the profession, the answer will almost invariably be "No one but the architect should be assumed to pay for mistakes emanating from his own office." In the abstract, this is harsh, but true. Then where shall one draw the line in this "give and take" policy?

To this, there is but one answer (from the outsider): "So prepare one's contract documents that there will be absolutely no need for giving or taking." "Impossible?" Perhaps, but one can at least make it a policy to take sufficient time in the checking of both drawings and specifications, and the one against the other, to approximate perfection. This should be done to such a degree that construction superintendents can be positively forbidden to do any trading with the contractors or their subs, insistence being made that the architect alone will take care of all doubtful points.

Prevention in this fashion of even the slightest inclination on the part of a superintendent to "let down the bars" will greatly increase his efficiency, as well as add materially to his respect for his employer and the product of the office. Discussion of this subject with the average experienced hired superintendent would probably disclose a surprising unanimity of opinion to the effect that no job can be supervised to a conclusion without a certain amount of give and take. This is neither true nor complimentary to the sincerest of our endeavors.

It is true, doubtless, of almost any rush job, in which, as in all others, the owner should be taken into the architect's confidence and have it made clear that the practice of architecture is so involved as to render it peculiarly susceptible to mistakes, serious as well as inconsequential. If the work must be turned out with improperly completed drawings or specifications, it should be definitely understood who is to stand responsible for their defects. Beyond question, the architect ought to take time enough to do his work right and should thereafter stand or fall on the result. He has no right, legal or moral, to try to force the contractor to suffer for his (the architect's) shortcomings or those of his instruments of service, nor to permit the contractor to recoup, at the expense of the owner, on some other feature of the work, except with that owner's consent.

And, certainly, he has no right, moral, ethical or otherwise, to give such contractor to understand, either by inference or by direct statement, that his continuance in the good graces of that office is dependent upon "swallowing his medicine", i. e.; making good the architect's mistakes—and seeking his recompense on the next job. We are using rather plain language, but it is a matter of observation that some architects have permitted their contract documents to become slipshod because of an acquired habit of limiting their bidders to tried men who can be depended upon to do as directed, rather than as was evidently implied by the contract. Not only are such architects compelling their clients to pay unduly for their construction, but they are digging for themselves a most embarrassing pitfall, if ever one such client should drag his case into court and employ

an experienced lawyer to show how his architect had betrayed the confidence placed in him.

We have digressed outrageously and can only plead that the subject is, to a considerable degree, germane—certainly worthy serious thought by those whose heart is in the good of the profession and the service it renders. What has been said applies, of course, to every branch of the work as much as it does to plumbing and drainage. An architect should carefully avoid the possibility of being placed in position where the contractor can carry a grievance to an owner and plead that the architect let him do thus and so (to the owner's surprise), so why should the same architect object to his doing this and that also?

To return to our mutton; another more or less embarrassing feature of specifying the plumbing, is the need (in almost any but large or standard work) of mentioning catalog items by name. Exception is made where the fixtures required are sufficiently repeated to warrant manufacturers making them specially to specifications other than their own. In preparing such a description, however, one must take care that he introduces no single feature or attribute that is peculiarly the prerogative of any one maker. For this reason, it is important that the architect or engineer writing the specification gleans at first hand the information upon which it is based and does not merely autograph descriptions which a representative of some manufacturer has prepared, with positive assurance that they can be considered common to all producers. On small work, for individual clients who take direct interest, one is accustomed to give the owner opportunity to assist in the selection, or to receive specific instructions that the architect is to use his best judgment.

But, on the ordinary run of work, where economy is an important factor, the simplest method, least expensive for both architect and client, is to specify catalog numbers and give the contractor permission to submit equivalents. Nothing can be gained by incorporating in the specifications a verbatim copy of a manufacturer's specification in lieu of the shorter numerical designation. That merely needlessly increases the bulk of a specification—and boots nothing, unless it be to save the sending of catalogs to superintendents. But the latter is less troublesome—and simpler for the man on the job.

Naturally, this opens up again the whole subject of the propriety of using "or equal" privileges in one's specifications, as what has been said applies as well to other factory products, such as hardware, steel furniture, lighting fixtures etc. And, in the last analysis, it must be up to the individual architect to decide whether or not he wishes to entertain the substitution of "equals" or to positively taboo them.

If his work is exceptionally high class and his client is depending upon him to get the best regardless of price, has implicit confidence in him to do so, then certainly the architect is justified in making up his mind that certain goods and none others will quite fill the bill. Even so, he should be just as sure that his exclusive requisition of the article desired does not affect its price to the contractor. Building materials are especially subject to competition and it is dangerous to eliminate it entirely.

It is equally true that many things appearing to be equal, and emphatically alleged to be so, may not be, may not even have the same market price. Again, it seems necessary for the poor architect to be almost omniscient. If he doesn't know, he must find out. Perhaps he can make money for the owner by permitting the substitution of something as good for the purpose as what is specified. Should he?

Our work is evolutionary. Why should not an improvement take place in a job under way instead of waiting to better the next one?

Supposing one had specified a large quantity of a certain bronze-body door-check for a building and a dealer wished to fill the order with another make which catalogued nothing better than a cast iron body, though the service and last quality of the check were demonstrably equal to the one specified. Further, that the architect discovers that the building will look as well with painted check-bodies as with those of tarnished bronze. Would it not be the proper procedure for the architect to ascertain how much he could benefit the owner by use of the cheaper material? In "cost-plus" building this is frequently done. Perhaps it could be done as often on definite-price contracts.



## PENCIL POINTS

Let us then proceed with these plumbing specifications, assuming that the building is in a town of sufficient size to have a plumbing code, also water supply and sewers, both sanitary and storm-water, adjacent to the site. We will omit catalog numbers and makers' names, for obvious reasons.

### DIVISION P. PLUMBING AND DRAINAGE

*Note.* The Contract and General Conditions of these specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of an apply in full force to these specifications for Plumbing and Drainage. The Contractor shall refer thereto as forming integral parts of his Contract.

#### ARTICLE 1. *Scope of work.*

##### (A) THE ITEMS under this Division include:

- (1) ALL PLUMBING, SEWERAGE AND WATER SUPPLY, hot and cold.
- (2) ALL DRAINAGE.
- (3) ALL EXCAVATING AND BACK-FILL in connection with plumbing and drainage.
- (4) ALL GAS-PIPING within the building.
- (5) STAND-PIPE AND FIRE-HOSE as stipulated.
- (6) SUCH OTHER WORK as is herein set forth.

##### (B) OMISSIONS.

- (1) FARM-DRAIN-TILE SYSTEM for the purpose of carrying surface water away from footings and foundation walls is not included in this Division.
- (2) TEMPORARY TOILET FACILITIES for the use of Workmen on the job are provided for in the General Contract and not in this Plumbing Division.

#### ARTICLE 2. *General Description.*

*Note.* Under the headings of this Article, there is given for convenience of Contractors a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications beginning with Article 3.

(A) ALL PLUMBING shall be in accordance with best standard practice and in strict compliance with the provisions of the local plumbing ordinances and State laws governing same. The drawings, diagrams and specifications, insofar as they apply to plumbing and sewerage are intended to comply in like manner and the Contractor shall carefully check same, one with the other and call the attention of the Architect to any apparent discrepancies and secure interpretation and decision on same before proceeding with work affected thereby.

(B) SEWERAGE shall consist of a complete system of gravity drainage connecting all plumbing fixtures and floor drains throughout the building with City sewer. All soil, waste and drain pipe and fittings for same in and under the building shall be extra-heavy cast iron. That outside shall be hub-and-spigot, vitrified tile.

(C) ROOF DRAINAGE shall consist of a complete system of gravity drainage connecting all roof outlets to City storm-water sewer, with piping as for sanitary sewer specified in preceding paragraph.

(D) TWO MANHOLES shall be provided, one in sanitary sewer line and one in storm-water drain line; each located as shown on plot plan.

(E) WATER SUPPLY shall consist of complete systems of hot and cold water supplying all plumbing fixtures as required, including heater, tank and recirculating piping for hot water system.

(F) FIRE-PROTECTION shall consist of a complete system of stand-pipes and hose reels, hose and fire-extinguishers, located as directed.

(G) COMPLETE PLUMBING FIXTURES shall be provided and installed as shown and described.

(H) NECESSARY CONNECTIONS shall be provided for kitchen and laundry equipment, boilers and hose-bibs.

(I) GAS-PIPING shall consist of a complete system, extending from gas company's meter to each emergency bracket-light and to gas-stove supplies.

(J) TESTS. All piping shall be tested before being covered from view and shall remain uncovered until approved under test. All cast iron pipe and fittings shall be tested by this Contractor under the supervision of the City Inspector and job Superintendent and as the former may direct, subject to his approval and certificate of acceptance, to be deposited with the Architect. All water pipe and connections, including valves and faucets, shall be tested under City water pressure and corrections made as required. All gas-piping

shall be tested as directed by the local gas company, from which a certificate of acceptance shall be obtained and delivered to the Architect.

(K) SHOP DRAWINGS AND SCHEDULES covering every feature of the work included in this contract shall be submitted for approval as specified under General Conditions. Pipe plans shall show runs of all pipe, with special indications of all which vary from locations shown on Architect's drawings. With schedules of fixtures, there shall also be submitted Maker's illustrations and descriptions of all items differing from those specified. No fixtures or other items will be accepted at building unless in exact accordance with specifications and approved schedule.

(L) PLUMBING PERMIT shall be secured from the proper City Official by this Contractor and the cost of same included as part of his contract price. The Architect will provide the necessary diagrams and make required corrections in same, but the Contractor shall attend to the filing and all subsequent dealings with the City Department, including all notifications to Inspectors incidental to the work.

## MATERIALS

#### ARTICLE 4. *Purchase and Delivery.*

(A) ALL MATERIALS shall be of quality and make herein-after specified, or equal materials approved by the Architect. Unless the Contractor makes written claim as to the unsuitability of any materials, it is understood that he agrees to produce first-class work with what is specified and will have same delivered at the building in ample time and in sufficient quantities so that neither this or other work will be delayed thereby.

(B) ALL DELIVERIES will be made in such manner as to properly maintain protection of all materials until installation. All items shall be properly labeled or marked for identification, which identifications shall remain until ordered removed by the Superintendent. Proper storage space shall be provided for material ready to be installed, but it is not intended that more than half the total requirement shall be stored on premises at one time. Fixtures and finished equipment shall not be delivered until building is ready to receive same.

#### ARTICLE 5. *Materials for Manholes and Outside Sewers.*

(A) COMMON BRICK shall be whole, sound, hard, well-burned, of even quality and free from lime, checks and culls. They shall ring clear when struck together. A dry brick, soaked in water 4 hours, shall not show increase in weight of over 15 per cent.

(B) ALL CEMENT shall be fresh Portland, of approved brand, and capable of meeting test requirements of the American Society for Testing Materials. It shall be delivered in original cloth bags, bearing name and brand of Maker, and shall be properly stored in water- and weather-proof shed, with floor 12" above ground. Cement in damp, damaged or caked bags will be rejected.

(C) SAND shall be medium coarse, composed of clean, hard, durable, uncoated grains and shall be free from injurious amounts of dust, lumps, soft or flaky particles, shale, alkali, organic matter, loam or other deleterious substances.

(D) RINGS AND COVERS for manholes shall be of best quality gray cast iron, free from defects, and of weight and design stipulated for the purpose by the City Sewer Department. Ladders in manholes shall be steel as specified.

(E) OUTSIDE SEWER PIPE shall be vitrified, salt-glazed, hub-and-spigot tile, well-shaped, hard-burned and free from chips, cracks, checks or other defects. Necessary fittings and proper bends shall be supplied for all locations, and no cutting will be allowed, except by permission of the Superintendent.

*(To be continued in the July Issue.)*

## PRODUCERS RESEARCH COUNCIL

THE PRODUCERS' RESEARCH COUNCIL held a meeting in Washington D. C., on Tuesday, May 4th, the day before the opening of the Convention of the American Institute of Architects. The opening address was given by D. Everett Waid, President of the A.I.A. Mr. Waid stressed the desirability of close cooperation between the Council and the Institute. The Council was also addressed by several architects including Emery Stanford Hall of Chicago, representing Illinois Society of Architects; N. Max Dunning of Chicago; Sullivan W. Jones, New York State Architect; D. Knickerbacker Boyd of Philadelphia, and Mr. H. B. Wheelock, President of the Chicago Chapter.



# PUBLICATIONS

## OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm using them. When writing for these items please mention PENCIL POINTS.*

**Steel Moulding.**—New Catalog No. 25, A.I.A. File No. 15. This Catalog has been compiled so as to be of the greatest use to those designing ornamental iron work. 11 pages of illustrated ornamental iron detail are included. 72 pp. 8½ x 11. J. G. Braun, 609 South Paulina St., Chicago, Ill.

**Metal Work in Color.**—Handsome brochure with three color plates showing ornamental metal work as produced for the Griswold National Bank of Detroit, Messrs. Smith, Hinchman & Grylls, architects. Standard filing size. The Flour City Ornamental Iron Co., Minneapolis, Minn.

**Eye Comfort.**—Monthly publication issued in the interests of good lighting Vol 12 No. 1 includes many illustrations and much information on the lighting of banks and hotels. Curtis Lighting Inc., 1119 W. Jackson Blvd., Chicago, Ill.

**Oil Heating, What it Means to the Architect.**—Descriptive and specification portfolio covering the question of heating with fuel oil primarily from the standpoint of those who design our buildings. A very useful document to all interested in this subject. Standard filing size 8½ x 11. Williams Oil-O-Matic Heating Corp., Bloomington, Ill. A. I. A. File No. 30-G-1.

**Blasteel Building Specialties.**—Data Sheet, A. I. A. File No. 27-C-4, illustrating and describing NoPole top sash operators, Spearpoint floor clips, Blasteel hanger insert, Blasteel Bull Nose floor joiner and Flat Top floor joiner. Blasteel Mfg. Co., Kansas City, Mo.

**Show Window Lighting.**—A. I. A. File No. 31F4. Handsome catalog in color covering this most important subject from both technical and non-technical standpoints. Pen and ink sketches of many interesting buildings, pertinent lighting data, detail drawings, etc. 30 pp. 8½ x 11. Pittsburgh Reflector Co., Bowman Bldg., Pittsburgh, Pa.

**Rolling Wood Doors.**—Data sheet showing equipment suitable for driveways and openings in garages, warehouses, factories, etc. where fireproof construction is not required. Standard filing size. J. G. Wilson Corp., 11 East 38th Street, New York City.

**Bulletin No. 81 and Data Sheet No. 42** with greasing rack details, etc. Standard filing size. Ramp Buildings Corp., 21 E. 40th Street, N. Y. C.

**Herman Nelson Invisible Radiator.**—Handsome booklet with six full page color plates showing treatment of different rooms where the radiators are actually installed. Complete detail drawings, tables, construction details and data for specifications. 8½ x 11. The Herman Nelson Corp., Moline, Ill.

**Smokeless City.**—Folder in color illustrating and describing the Kewanee Down-Draft Boiler. Size when folded, 8½ x 11. The Kewanee Boiler Co., Kewanee, Ill.

**Contractors Atlas.**—Periodical issued in the interests of architects and builders. The April issue contains an interesting article on The Ever Popular Bungalow for Town or Country with floor plan, sections and rear elevation. Also an article on New Method of Precasting Pier Shells. 8½ x 11. 11 pp. Atlas Luminite Cement Co., 25 Broadway, New York.

**Kreolite News.**—Monthly publication on the subject of wood blocks for floors for industrial plants, bridges, and other floors built to withstand heavy duty. 8½ x 11. 12 pp. The Jennison-Wright Co., Toledo, Ohio.

**Some Examples of Revolutionary Time Saving in General Building.**—Folder explaining what Luminite Cement is and its time saving qualities. Report of Tests. A. I. A. File No. 3a-1. 8½ x 11. The Atlas Luminite Cement Co., 25 Broadway, New York.

**Triangle News.**—The April issue (Sales Convention Issue) contains much interesting news on the activities of R. & B. and recent installations completed. 9 x 11½. 24 pp. Richardson & Boynton, 260 Fifth Ave., New York.

**Parr-Quality White Sanitary Steel Bathroom Cabinets.**—Catalog 6 illustrates and describes this accessory, also linen cabinets, kitchen cabinets and radiator enclosure cabinets. Typical bathroom installations. 4 x 9½. 18 pp. Parr Metal Products Corp., 3519 41st Street, Long Island City.

**Lockwood Doors.**—Folder illustrating in color various types of Lockwood Doors. Tables of sizes, specifications. Morgan Millwork Co., 113 W. North Ave., Baltimore, Md.

**Boca Top and Bottom Sliding Ventilator Windows with Bronze Guides.**—Catalog G-26, just off the press describes in detail the architectural and industrial types of projected windows and illustrates in color the exclusive Boca Bronze Guide feature. Contains specifications, standard installation details and tables. A. I. A. File No. 16. 15 pp. 8 x 11. The Bogert & Carlough Co., Paterson, N. J.

**Sun Parlors and Sleeping Porches.**—Plan No. 50 and large detail data sheet showing treatment of these features, both in elevation and with respect to construction. Southern Cypress Mfrs. Assn., New Orleans, La.

**Architectural Interior and Exterior Woodwork.**—Standardized. Illustrated. This is an Architects' Edition of the complete catalog of Curtis Woodwork as designed by Trowbridge and Ackerman. Contains many color plates. Curtis Companies Service Bureau, Clinton, Iowa.

*Published by the same firm, Better Built Homes, booklet, 9 x 12, 40 pp. Also Curtis Details, booklet, 20 pp. 7¼ x 10½.*

**Pease Junior Blue Printing Machine and Pease Junior Sheet Washer.**—Booklet describing type of equipment especially designed for the moderate user of blue prints. Quick and satisfactory results at a low cost. C. F. Pease Co., 803 No. Franklin Street, Chicago, Ill.

**Roddiss Doorman.**—Illustrated booklet describing the use of Roddiss Doors for residences, clubs, hotels, etc. 12 pp. 7¼ x 10¼. Roddiss Lumber & Veneer Co., Marshfield, Wis.

**Cotswold Casements.**—Brochure showing casements and leaded lights in standard sizes and designs. Exterior views of noted English and American houses, hardware details and 12 plates of details useful in the drafting-room. 8½ x 11. International Casement Co., Jamestown, N. Y.

**Gulf Stream Water Heater.**—Leaflet showing design and construction of this most important item of equipment. Marion Machine, Foundry & Supply Co., Marion, Indiana.

**Crescent Elastic Tile Floors.**—Booklet describing this flooring with color plates, color chart and views showing different uses and installations. 8½ x 11. United Cork Companies, Lyndhurst, N. J.

**Zeolite Water Softener.**—Bulletin 509 describes the Graver type of equipment for softening and filtering water, together with useful notes on the various problems involved. Useful to every specification writer. Standard filing size. 8½ x 11. Graver Corporation, East Chicago, Indiana.

**Holmes Concealed Beds.**—Booklet describing this space saving equipment with necessary instructions for providing for it in the drawings and much other useful information. 40 pp. Concealed Bed Corp., 58 E. Washington St., Chicago, Ill.

**Gorton Heating Equipment.**—Catalog No. 92, just off the press and descriptive of the Gorton line of specialties which will be found useful on practically every heating job. Much useful data for the draftsman and engineer. 84 pp. Convenient pocket size. Gorton & Lidgerwood, 96 Liberty St., New York.

**Research Bulletins.**—These documents published by the Producers Research Council, affiliated with the A. I. A. are available to all who may care to apply for them. They cover research on concrete, architectural terra cotta, metal casements, and many other items of building equipment, as well as basic materials of construction. Standard filing size 8½ x 11. Scientific Research Dept. of the A. I. A., 19 West 44th St., New York City.

**The Dunham Hand Book No. 314.**—A very useful book for all architects, draftsmen and specification writers. Convenient pocket size, completely indexed, 190 pp. All on the subject of heating. Dunham Co., Dunham Bldg., 450 E. Ohio St., Chicago, Ill.

**Atlantic Terra Cotta.**—Monthly magazine for architects and draftsmen. Vol. 8 No. 7 shows details of interesting buildings designed by Mr. George B. Post. Atlantic Terra Cotta Co., 19 West 44th Street, New York City.

**Grading Rules for Maple, Beech and Birch Flooring.**—Booklet containing this useful information, Maple Flooring Mfrs. Assn., Stock Exchange Bldg., Chicago, Ill.

**The Insulation of Roofs to Prevent Condensation.**—Technical treatise on this most important subject which will be found interesting to all those interested in industrial buildings and in many other types of buildings as well. Detail drawings, charts and much other useful information. 36 pp. 7½ x 10½. Armstrong Cork & Insulation Co., Pittsburgh, Pa.

**Doorways.**—The May issue shows attractive picture of Moorish architecture and contains much practical information as well. Richards-Wilcox Mfg. Co., Aurora, Ill.

**Color Chart of Decorated Vitrolite.**—Four pages in full colors showing thirty different ornamental motives together with blue prints. A. I. A. File No. 22-F. Vitrolite Co., 133 W. Washington St., Chicago, Ill.

**Planning the Small Bathroom.**—Booklet on facts about plumbing for the home owner. Many interesting plans, useful in solving many difficult problems. Crane Co., Chicago, Ill.

**Silentvane Fans.**—Catalog No. 208. Comprehensive illustrated treatise on the subject of ventilation. Dimension sheets, tables and other extremely important data for the specification writer. Really constitutes a handbook on the subject. 90 pp. 8½ x 11. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

**Pond Continuous Sash.**—A. I. A. File No. 16-E-1, Catalog 12 covers subject of sash and sash operation for all types of industrial buildings. Also covers question of roof design. Many pages of carefully drawn details of value to the engineer as well as the architect and draftsman. Complete specifications. A valuable hand book. 44 pp. 8½ x 11. David Lupton's Sons Co., Philadelphia, Pa.

**Surfacing Concrete with Contex.**—Illustrated brochure on the subject showing the application of this material to many different types of work and for many purposes. Specifications. 30 pp. 8½ x 11. Concrete Surface Corp., 342 Madison Ave., New York City.



# PENCIL POINTS

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## OBSERVATIONS ON ARCHITECTURAL DRAWING

NO STUDENT OF ARCHITECTURE can read Mr. Zigrosser's article and study Thomas Shotter Boys' drawings which are shown in this issue of PENCIL POINTS and fail to get a broader and clearer idea of the meaning and purpose of architectural drawing to which, during the period of professional training, so much time and effort are devoted. The author has woven into his appreciation of the work of this nineteenth century draftsman many observations on a particular phase of architectural drawing.

The province and intention back of architectural drawing and illustration of course cannot be exhaustively treated from any one point of view. If we admit that the fundamental object of architectural drawing is the representation of architecture, the field of draftsmanship will range from the plainest and most practical working drawings made for the purpose of actual building, to the other extreme exemplified by Piranesi's imaginative and vigorous architectural visions.

In geometrical drawings—plans, sections, and elevations—there are two essential conditions: they should be absolutely accurate and they should be entirely clear. In making these it should be the intention of the draftsman to provide drawings from which other men can construct the building exactly as intended by the designer. The draftsman must have a complete knowledge of construction, of methods, and of materials, and must be able to show by his drawings exactly what is required. Geometrical drawings are working drawings and should convey the facts in a practical way.

On the other hand, those drawings which are intended to produce in the mind of another the impression of an architectural idea, must be considered from an entirely different standpoint. The "rendered" drawing is the instrument by means of which the architect hopes to convey his idea to his client. The building must be represented as a whole and as a whole considered in relation to its placing on the site, its surroundings of sky and landscape. Unfortunately in the average architectural drawing of this type the draftsman has not taken

full advantage of his powers as an artist. His limits are more closely set, it is true, than those of the free artist, but there is no reason why a rendering should be made merely mechanically without any apparent intent to compose the subject. The modern renderer often appears also to lack in appreciation of the value of line quality as an element in atmospheric effect, and there is seeming neglect of one of the most effective resources available for conveying a pictorial or decorative impression—the treatment of light and shade—*chiaroscuro*.

So large a vocabulary of appreciation has been lavished—one might almost say squandered—in the estimate of the worth of a draftsman's *skill* that when something really great, really masterly, is the subject of consideration, the *critic* is reduced to silence and the "hack" writer of criticisms is at a loss for a new set of superlatives. We do not intend to belittle skill—it is essential to greatness in any of the arts, but deftness, which may be an acquired characteristic, is so akin to skill that the two are often confused. "Skill" counts more than deftness—it implies a natural aptitude fostered and developed with much determination. And that word, determination, strikes an important note in the study of drawing. One may excel at composition, at draftsmanship, and still be only a "clever" renderer. Thomas Shotter Boys was a master of the technical aspects of his art but he was more. That "more" is what has made his work live. He had freshness of vision and skill in setting down what he saw but also he *thought*, *studied*, and *felt*. It is from the mental qualities of the man that Boys' drawings derive their interest for the twentieth century delineator. Without these attributes, one might have found it entertaining to idle over the works of a man who lived a century ago, but his drawings would have had no *vital* place in the present day draftsman's system of study. We have often urged the necessity of drawing, drawing constantly. To that we would add: as you draw, think; as you think, draw; each process will be enriched.

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CAMERA STUDY BY J. FRANK COPELAND  
OUTDOOR THEATRE BACKGROUND, BORGHESE GARDENS, ROME



# PENCIL POINTS

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## THE ARCHITECT'S PROFESSION

FROM "ÉLÉMENTS ET THÉORIE DE L'ARCHITECTURE."\*

By J. Guadet

I SHOULD FEEL that this work was incomplete if, after speaking to you to the best of my ability about the art of architecture, I did not tell you as briefly as possible what the architect's profession is. In certain respects I might even better have begun with this, since before undertaking long and laborious studies it is well to know to what they lead; but, on the other hand, how can I make you understand your professional functions if you are not prepared for them by conscientious studies?

I wish, therefore, to speak to you first about your duties, that is the first thing to know. Then, I must speak to you about the rules, or, more simply, the practices which to-day direct the architect in his career. These practices have not always existed, and even at present do not exist everywhere; but everywhere it is well to know them, for I believe that nowhere is the architect's profession better defined than with us in France. It is essentially liberal, not lending itself to doubtful speculations nor to industrial enterprises. But in order to insist strictly upon this characteristic, we have to struggle against compromising encroachments and against opinions honestly supported by precedents which we refuse to countenance. There is no group of men, however honorable as a whole, who have not blemishes of this kind; all the more reason, then, for not exposing ourselves to any suspicion, and for showing by all our actions the dignity of our calling and our determination to have nothing in common with those who would compromise it, if we recognize as theirs a title which they have usurped.

\* Not that this title is legally usurped,—for the title of architect belongs legally to no one,—every one, even the most unworthy, can call himself an architect, as he can call himself a painter, engineer, poet, or writer. The payment of a license-fee will settle all legal formalities; a cleverly staged equipment will mask his intrusion upon a domain which is not his; the talent of his draftsmen will enable him to sometimes sign works which he himself would be incapable of planning or executing. All that is most regrettable, but no law prevents it. While the doctor, guardian of the public health, is forced to

give guarantees,—justified by the fact that the crime of illegal medical practice appears in the penal code,—the architect, guardian of the country's buildings, is not protected by any legal guarantee. Is this regrettable or fortunate? For my part, I believe that one cannot imagine our profession a closed one without foreseeing that it would be paralyzed; and that in this, as in other things, there is no régime more stimulating than liberty.

And then, what is the good of imaginary regrets? For some years past architects, stirred up by these intrusions which compromise our profession, have frequently agitated the old question of an obligatory diploma. The defenders of this idea have an abundance of excellent reasons to bring to its support; but their illusion is profound. A century after the Revolution we are not going to reestablish in a new form anything like the corporations and guild wardenships of the Old Régime. The privilege of the doctors and the lawyers has survived; nothing could be better. If they, too, had disappeared in the upheaval, they would not be reestablished. We will not by any new exceptions weaken the principle of the liberty of the professions; and against parasites and the unworthy we, like others, have no other weapon in competition than superiority. Let us have, therefore, this superiority in talent, dignity, honor, and faith.

Now you must have realized already that one cannot be an architect without first being an artist and a man of honor. You know the fine ancient definition of an orator: *Vir bonus dicendi peritus* (the honest man skilful in speech); we may also define the architect as *Vir bonus edificandi peritus* (the honest man skilful in constructing). And by this word "honest," I do not mean simply material honesty,—which consists in respecting one's engagements, in living as if each act of one's life had its witnesses,—I mean artistic honesty; and I should certainly be unfortunate if, after all that I have said to you, it would be necessary for me to give it further definition. But, as a great moralist has said, it is often more difficult to know one's duty than to do it. I do not pretend to compose for you a guide in which you can find answers to all the doubts which at times will torment you; I can at least lay down some principles, some rules even, deriving my authority from the recollections of a

\*A course of lectures given at the École des Beaux Arts by J. Guadet, Professeur et Membre du Conseil Supérieur à l'École des Beaux Arts.



long career which, I venture to say before you, has never wavered.

After performing this first duty of studying your art as fully and as perfectly as possible, in all its parts,—for everything we teach you is necessary for the architect,—you will, in most cases, be at first the employee of another, even before the completion of your studies. I hardly need to tell you that your work for him must be conscientious; that even at the risk of having your knowledge somewhat exploited you must be his devoted collaborator. But there must be a return for this devotion; keep it well in mind for the time when you will be a "boss" in your turn. The young man, still a student or a student of but yesterday, has learned everything that a school can teach; he still needs the practical stage, the experience which his preparation will enable him to acquire rapidly, but which, of necessity, he still lacks. The time that he gives is, therefore, not simply a means of earning some money; it must be an opportunity for further study. Consequently, if you can choose, go to the man who knows enough to make association with him instructive; earn a little less, if need be, with a skilful artist; avoid the man who would have nothing to teach you.

In our *École des Beaux Arts*, as I have told you, the instruction is amicable; it is necessary for this amicable instruction to be continued in the stage of the first years of the profession. And be not mistaken—you will not always find it so. Are you skilled in planning and design? You have as yet no experience of the workshop or the cost of building. Then, they will prefer to make use of you in planning and drafting—not for superintending works, making out estimates, or settling accounts; they will make you do what you know already, and not what you might need to practice. It is generally only by chance and indirectly that you will become experienced, unless you have the good fortune to meet a man who combines with his talent the desire to be useful to you, and to reward your devotion by endeavoring to secure for you necessary opportunities. Choose, then, if you can. That is all we can say on this subject;—in fact, this applies to the "boss" rather than to the draftsman. Keep, at least, the advice for the future,—if you have had the good fortune to find a desirable master, you will repay the debt later on to those whom you will employ in your turn. If this good fortune does not fall to you, later on, as you measure your regrets, you can be more liberal with young men than others have been with you.

But, then, supposing your unlucky star, or necessity, has led you to one of those wire-pullers who usurp the title of architect,—who confine all their activity to looking up jobs; who, unfortunately, find them; who have in their office an agency, or rather a kitchen, where they assign to one the task of composing, combining, planning,—very little, alas!—the job picked up; to another, the same for another job; who give the illusion of remarkable activity and extreme diversity in the productions they sign, thanks to the variety of the real authors of them. What is to be done in such a place? There you can

be nothing but dupes and accomplices at the same time,—lose your honor, and learn lack of principle in all its forms. Make your escape at once, and do not bring to this kind of work the coöperation of your talent cynically squandered.

Perhaps you will have the good fortune to be connected with work for the Government, for a city, or a great corporation. There, generally speaking, you will be in a good school; somewhat tempted, perhaps, to measure your work by your salary, which will usually be a modest one. That would be a mistake, a wrong calculation. You are useful to your work; but your work is also useful to you. The man who interests himself in everything is rewarded by the value he acquires; and here is what always happens: the hierarchy officially establishes the grades and ranks; but very quickly the one who has deserved to become the chief's right-hand man succeeds, even if he should come after several others on the pay-roll. And this success follows him in his career just as the recollections left at the *École* among his contemporaries follow him throughout life.

And always remember that the emulation which was at the *École* the mainspring of your progress remains the law of your whole life. The architect's profession is untrammelled; the diploma that you have obtained is an academic title,—a certificate of serious studies,—nothing more. There lies open to every man the place he merits,—the place which he must first win, and which he must next retain. One can still rise, slowly and with effort; the descent is always rapid.

Now, I will consider you in the performance of your architectural functions, having as your client a corporation or a private individual. In either case the duties will be the same. In the first place, whatever may be the importance of the work entrusted to you, do not balance the amount it will yield with the work it will cost you. You owe it all your talent, all your efforts, all your severity toward yourself. You must satisfy your client—that is taken for granted. But you must above all satisfy yourself; and if you are a true artist that is more difficult. "Twenty times on the loom put back thy work and seek its full perfection."

I have often told you that the general program of the work to be executed does not fall within the architect's domain. Evidently it is the client who should know what he desires, and should seek its realization from the artist of his choice; and the latter, for his part, must insist upon the carrying out of this program. But this rule cannot be absolute. The architect is the counsel of his client, and not merely the man to carry out his wishes. He must therefore enlighten and warn his client; show him, for example, that the lot of ground at his disposal, or the surface that he wishes to give to the building, cannot suffice for everything he would require of it; that all that he wants on the second floor could not be built over what he wants on the ground floor, etc.; and still more frequently, that everything he wants would involve an expenditure far beyond his resources; that, accordingly, he must



make the program more modest, or increase the means. Of course, the architect may in this way lose a contract. While he is making these honorable protests another will appear who will promise everything the client wishes, and more besides; only to struggle, later on, in difficulties from which you will be glad to have escaped. Nevertheless, believe me, that the sincere, logical conviction, affirmed without stubbornness but without weakness, is accepted as authoritative, unless you are dealing with people who wish to be deceived, or appear deceived for some underhand motive;—then, do not be sorry to lose them.

You will be, therefore, in the preparations for every contract, very clear, very frank, and very honorable. I know that architects yield sometimes to the desire to close with a contract, saying to themselves that when the wine is drawn it has to be drunk; that the importance of the work and of the expenditure will be gradually revealed. To reason thus is not a clearly defined crime; it is, however, a real abuse of confidence; it would be permissible only in a conscience of too great latitude and in ethical standards that are too lax.

But if the architect is and ought to be the faithful, devoted representative of his client, he is also the intermediary agent between this client and the contractor. Realize fully the real greatness of this position. On the one hand, a man or a corporation who understands nothing about questions of construction, whose relation toward you is that of a minor to his guardian; on the other hand, men who have to be competent and skilful in these matters, but whose interests are opposed to those of the former. Between the two the architect acts as a kind of conciliatory judge. The balance of his justice must not lean to one side;—he must, as far as lies within his power, assure to each one his due: to the client, the faultless workmanship to which he is entitled; to the contractors, the legitimate remuneration for this work in accordance with the terms of the contract. You will see, as I have seen, clients greatly annoyed, even furious, because their architect, in a contractor's bill, rectified a mistake in calculation; for example,—a comma in the wrong place, reducing to a tenth of the right estimate a piece of work really performed. That is, however, the strict duty of the architect: he may fail to perceive an error, but if he does perceive it, no matter to whose detriment it may be, he must rectify it without dispute. And first of all, he must see to it that the reciprocal obligations are stated in precise terms—a contract carefully prepared has every chance of remaining clearly understood.

The architect, moreover, will be quite often the intermediary agent between his client and neighbors, tenants, and insurance companies; the same principles of fairness must guide him in these various cases. He has interests to defend, of course; but he must not defend them *per fas et nefas*. It would be an insult to expect from him services which his conscience would condemn.

Finally, the architect is also in certain respects the guardian of the workmen employed in the work he is overseeing. To be sure, it is not his place to interfere in disputes about the contract between bosses and workmen. He should be ignorant of the salaries paid; and yet, he can sometimes, by discreet and kindly intervention, place his influence at the service of the necessary agreement. But he ought to watch over the safety of the workmen, sometimes in opposition to themselves and their own imprudence; he must even forbid a method of work that seems to him dangerous,—notably, through an insufficiency of scaffolding or material, and, if necessary, stop the work rather than tolerate imprudence that might be dangerous. There are, as it is, enough inevitable dangers in building.

All this is a delicate matter, and involves a great number of special cases. In this general treatment I have been able to deal only with principles while withholding the applications. But such a work, dealing with details, does exist in a certain measure. The *Société Centrale des Architectes Français* has concentrated in a substantial set of rules the professional duties of the architect; and these have been successively approved and adopted by the various societies of architects existing in France. In drawing up this document they have endeavored to be as far-seeing as possible, sometimes even minute; and the doubtful questions, when any arose, have been preferably settled with a tendency to severity. This collection has two purposes: on the one hand, it reminds architects, if necessary, of the rules to be followed in their duties with regard to themselves, fellow-architects, clients, and other parties; but we must add that in this it makes no innovations, and is nothing more than the statement and record of the habits and ethical standards of all honorable architects. On the other hand, it makes known to clients, corporations, and magistrates the strict duties that we recognize,—the things which can be asked of us, and those which cannot. And the thought which has been kept constantly in mind as it was being framed is that every profession honors itself and gains in consideration when it shows severity toward itself and knows how to reject, through professional dignity, any doubtful action.





CHROMOLITHOGRAPH BY THOMAS' SHOTTER BOYS  
HÔTEL CLUNY, PARIS





RUE DU RIVAGE, ABBEVILLE, CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS

## “PICTURESQUE ARCHITECTURE IN FRANCE”

BEING A SELECTION OF CHROMOLITHOGRAPHS BY THOMAS SHOTTER BOYS,  
AN ENGLISH DRAFTSMAN OF THE EARLY NINETEENTH CENTURY

*By Carl Zigrosser*

*Illustrations from the Collection of E. Weyhe, New York.*

IT IS WITH SOME misgivings that I venture to place before the readers of “Pencil Points” a paper on the chromolithographs made in 1839 by an almost forgotten and until recently ignored architectural draftsman, Thomas Shotter Boys. I am conscious that one may feel that it savours of pedantry to delve into the past when our eyes are on the future. “Why”, you will perhaps ask, “should we devote our attention to the works of a nineteenth century artist when there are so many eminent draftsmen of our own day whose work should be better known and appreciated?”

And yet, I think that it is valuable sometimes to look into the past to see what has been done and to note the great difference between the old drawings and what has come to be considered the typical manner of delineating architecture. It has been said that American architects do not hesitate to receive inspiration from the architects of the past, but

that draftsmen seem to believe only in the absolute efficacy of the modern Beaux-Arts methods.

Reginald Blomfield, in his book, “Architectural Drawing and Draughtsmen”\*, states that “There is no royal road to draftsmanship - - - and the tendency to concentrate attention on contemporary work to the neglect of the study of the past is peculiarly dangerous in the case of the Arts, because the standard of appreciation, the tests to be applied to the works of living artists, are apt to degenerate through simple ignorance of what has actually been done in the past; and although of course students will note the work of their contemporaries, it is not here that one should search for the touchstone of criticism but in the achievements of men long since dead”.

Before the practical development of photography the architectural student who was unable to study a

\* Published by Cassell & Co., London 19:2.





CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
RUE DU RIVAGE, DETAIL AT LARGER THAN ORIGINAL SIZE



PICTURESQUE ARCHITECTURE IN FRANCE



CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS

L'ABBAYE ST. AMAND, DETAIL AT SIZE OF ORIGINAL





CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
L'ABBAYE ST. AMAND, ROUEN



PICTURESQUE ARCHITECTURE IN FRANCE



CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS

HÔTEL DE VILLE, ARRAS



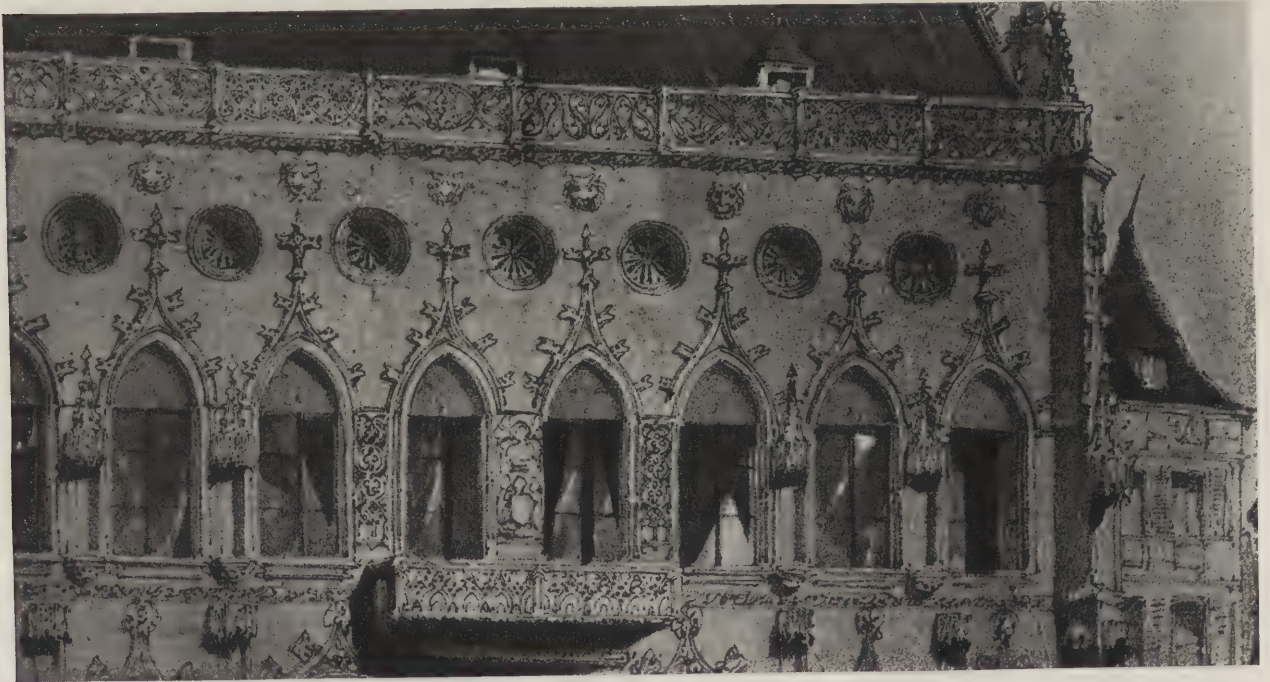
building *en-situ* was forced to form his impression of the subject from drawings. There was a lack of mechanical means of translating the building into a graphic medium. For this reason many of the drawings of the masters of the past century show a fidelity to the subject and an accuracy of transcription that has been lost or neglected by the modern draftsman. The thing to do today seems to be to concentrate all one's effort upon the delineation, with a sharp point, of the more picturesque bits of old buildings, or to give an impression of the building as viewed in the mood of the beholder rather than to make a drawing of the subject as the architect intended it to appear.

Thomas Shotter Boys did his important work before the advent of the photograph, at a time when

process was fully understood as distinct from a means merely of reproducing drawings in quantities.

Nothing much is known of his early life and we do not find that he achieved any great reputation prior to his publication of the volume of plates, "Picturesque Architecture in France",—the work we are considering. We know that he supported himself by copying other men's drawings on the stone and on copper for publication and that he returned to England in 1837 to put upon the stone the sketches and designs of David Roberts and of Stanfield.

The drawings which we have selected are among the first chromolithographs produced which have real artistic merit. It is to be regretted that it is not practical to reproduce these drawings in their original



CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS

HÔTEL DE VILLE, ARRAS, DETAIL AT SIZE OF ORIGINAL

volumes of "Vistas" and "Views" were in style. He was required to make an accurate portrait of his subjects and to render his drawings so that they should have a documentary and not merely a personal, inherent artistic interest. The building was the thing Boys put upon the lithographic stone, but he developed a scenic quality in his compositions and manipulated the focus of interest in a skillful manner. His drawings seem to be a happy medium between the realistic and the picturesque, where pictorial effect and feeling are added to the documentary facts of the subjects, creating a living and human atmosphere.

Boys was born in England in 1803, a few years after the discovery of lithography by the Bavarian, Aloys Senefelder. He spent the early part of his life in France where lithography had taken a firm root as a graphic medium and the artistic side of the

colors, for a great part of their appeal is due to the judicious and sparing use of tints and small masses of solid color—which in the case of Boys' lithographs were conceived and printed in color from several stones. This was not done in many of the so-called "chromolithographs" where the color was painted on after the black and white outline proof was made. Seldom do we find prints from the stone where the color is so clear and so well applied as on those made by Boys.

In continuing to speak of Boys' "drawings" and illustrating our subject by reproductions of the lithographic prints of these drawings, we do so fully recognizing that the only way in which the print differs from the drawings on the stone is in the putting together of the several colors and the obliteration of the traces of working. The artist has complete freedom to work as he chooses in lithog-





PORTE ROUGE, NOTRE DAME, PARIS



RUE DES MARMOUSETS, PARIS

CHROMOLITHOGRAPHS BY THOMAS SHOTTER BOYS





CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
CHAPELLE DE L'INSTITUT, PARIS





CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
LA CHAPELLE DE L'INSTITUT, DETAIL AT SIZE OF ORIGINAL





CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
PAVILLON DE FLORE, TUILLERIES, PARIS



PICTURESQUE ARCHITECTURE IN FRANCE



CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
PAVILLON DE FLORE, TUILLERIES, DETAIL AT SIZE OF ORIGINAL



## PENCIL POINTS

raphy; because of its nature he can use pen drawing, crayon drawing, wash drawing, or, by scraping and scratching, work from solid color to white.

By using all these at the same time, in one or many colors, a facsimile of his drawings can be obtained—provided, of course, that the printer has the necessary technical expertness. The result is that the products of lithography can be truly seen only as a part of the drawing and design.

Boys' drawings cannot be said to have any specific lithographic technique of draftsmanship, unless he might be considered to have devoted to his work an amount of labor and time which would have been uncalled for if there had been but one drawing to sell. Boys, in making one elaborate drawing, was enabled to produce many duplicates of it—each of which had a market value.

The outstanding feature of the technique employed by Boys appears to be his remarkable sureness of drawing. No meaningless scratches appear to give evidence that he was in doubt about a line. What his eye transmitted to his hand was put down with accuracy and without hesitation. He may perhaps have made preliminary sketches for the final drawings on the stone, but if he did no evidence of them appears in the finished work.

The assured freedom of hand and lightness of touch in his drawings transmits a true portrait of the subject. His ornament is never slighted—he draws it as it exists. There is informative character in all the details. Some of Boys' drawings show the use of a straight edge for ruling lines. Just how

difficult it is to combine free hand lines pleasingly with ruled ones is known to all who have tried the experiment. In Boys' case, however, he seems to get a feeling into the ruled lines that in no way clashes with the freedom of the others.

Boys died in 1874. That his work is not more generally known is not due to lack of merit, but perhaps to the fact that his two works which have the greatest value, "Picturesque Architecture in France," and "London Views," are to be found complete only between the covers of large and heavy volumes in the more progressive public libraries and museums. Occasionally a set of prints or some odd drawings come into the possession of the larger or more discriminating book and print dealers, and when this happens they are usually snapped up by a collector or by a discerning buyer.

If this glimpse of the achievements of Thomas Shotter Boys serves to introduce his work to the draftsmen of today and if, through this acquaintanceship, they are better able to criticize their own work, it will have served its purpose. Every draftsman who has access to the original lithographs of the artists of the past—men of the calibre of Boys, Roberts, Hague, Bonington, Isabey and others of the same period—who devoted the majority of their efforts to the delineation of architectural subjects will find the time well spent if they study the technique of these masters. If they absorb only a sense of the necessity of accurate and sure transcription, they will have added to their talents an element which so many seem to lack.



CHROMOLITHOGRAPH BY THOMAS SHOTTER BOYS  
PORTE ROUGE, DETAIL AT ORIGINAL SIZE



# STUDYING IN THREE DIMENSIONS

## SOME NOTES ON THE USE OF MODELS DURING THE PRELIMINARY STAGES OF DESIGNING A BUILDING

*By Maurice Gauthier*

THOSE ARCHITECTS who have, of recent years, made use of scale models in the study of their designs must often be tempted to wonder why they never thought of adopting this practice long before. To these men, models have become a necessity, a natural means of searching for solutions to their problems, which offers important advantages over drawings on paper. I am not writing here about presentation models, made after the design has been all worked out on paper. The function of the model in such cases is simply to give to architect, client, and public a more complete idea of the finished building than can be obtained from the rendered elevation and perspectives. Such models are valuable indeed, and have their place. This article, however, is written to advocate an extension of the use of models to cover the preliminary study of the design, at which time ideas are plastic and may be freely and appropriately expressed in a plastic medium.

The several advantages of models for purposes of study are perhaps obvious, but they are soon stated and it may be well to set them down here. To say simply that they show the third dimension is putting it too mildly. What is more important is this: they give to the draftsman a very real and strong sense of that third dimension with which he must be so almightily concerned in designing architecture. "Paper architecture" is thereby made almost an impossibility, for the model cannot fail to bring out pitilessly every awkward angle and clumsy proportion. One model is better than many perspectives, and likely to give a far truer impression of the building, because it eliminates the possibilities of deceptive presentation and trickery, often unintentional, so well known to the skilful draftsman. Another advantage of models lies in the rapidity with which they can be made. This point will be emphasized later in explaining the methods of working.

There are two types of models in common use, those made of cardboard and those of modelling clay or plastelline, from which casts are made in plaster of Paris. The choice of material to be used for the model depends entirely on the size and type of the building. In extremely simple buildings, where the interest is to be obtained only by bands or areas of color, the cardboard model comes forward as a time saver. If, for example, a business corporation such as a firm of tile manufacturers requires a building characteristic of the product in which it is dealing, color becomes the ruling factor of the parti, and cardboard is obviously the thing to use. Again, when it is necessary to show the complete building, interior and exterior, cardboard will be found the logical material. On the other hand, when the important thing is the

relationship between the masses, in a building with set-backs or with several distinct divisions, or when there is a large amount of important sculptural ornament, plastelline or modelling clay makes things much easier. Depth of reveals and all recesses from the lot line are easily shown without complicated manipulation and very realistic effects may be obtained in the casts, which may be shellacked and then painted the actual colors of the materials to be used in the finished building. Plastic material is, of course, the thing to use for modelling details at large scale or full size as a guide to the stone cutters or terra cotta men. This work, however, had best be done by an architectural sculptor, under the supervision of the architect.

The technique of constructing cardboard models was made admirably clear by Harvey Wiley Corbett in a series of articles which ran in *PENCIL POINTS* in 1922, so that it will perhaps be unnecessary to go into further detail here about them. I shall, however, attempt to explain the procedure followed in the office of Dennison and Hirons in making plaster studies of buildings. This I believe I can best do by considering a specific problem.

Let us follow the study of the elevations for the new building of the Liberty Title and Trust Company of Philadelphia. This building is to be built on a rectangular corner plot involving two principal elevations. Different schemes for these elevations are first studied and presented to the clients in the form of  $\frac{1}{16}$ " scale colored cardboard models similar to those shown in figures 1 and 2. These models are simply and quickly constructed to show the general mass of the building with its setbacks. The windows and entrances are rendered to show reveals, spacing and so on. After conference with the client, one of these schemes is adopted for further development, the first step of which is to make  $\frac{1}{16}$ " scale models in plastelline of the two most important elevations. This is the way it is done.

On a board there are fastened two pairs of parallel cleats spaced apart at distances equal to the widths of the elevations at  $\frac{1}{16}$ " scale. If additional elevations were needed an extra pair of cleats would be necessary for each one. The spaces between these cleats are filled in with plastelline to form two slabs of sufficient thickness to allow for the modelling of any setbacks. The arrangement is shown graphically in the isometric sketch, figure 9. Using a T-square and triangle just as in making a drawing on paper, but substituting a needle-pointed tool for the pencil, the elevations are then rapidly drawn. The next step is to cut out the setbacks, and for this a metal plate adjustably attached to a cross bar of wood is used. Reference to the isometric sketch and to figure 10 will show this more clearly than words.



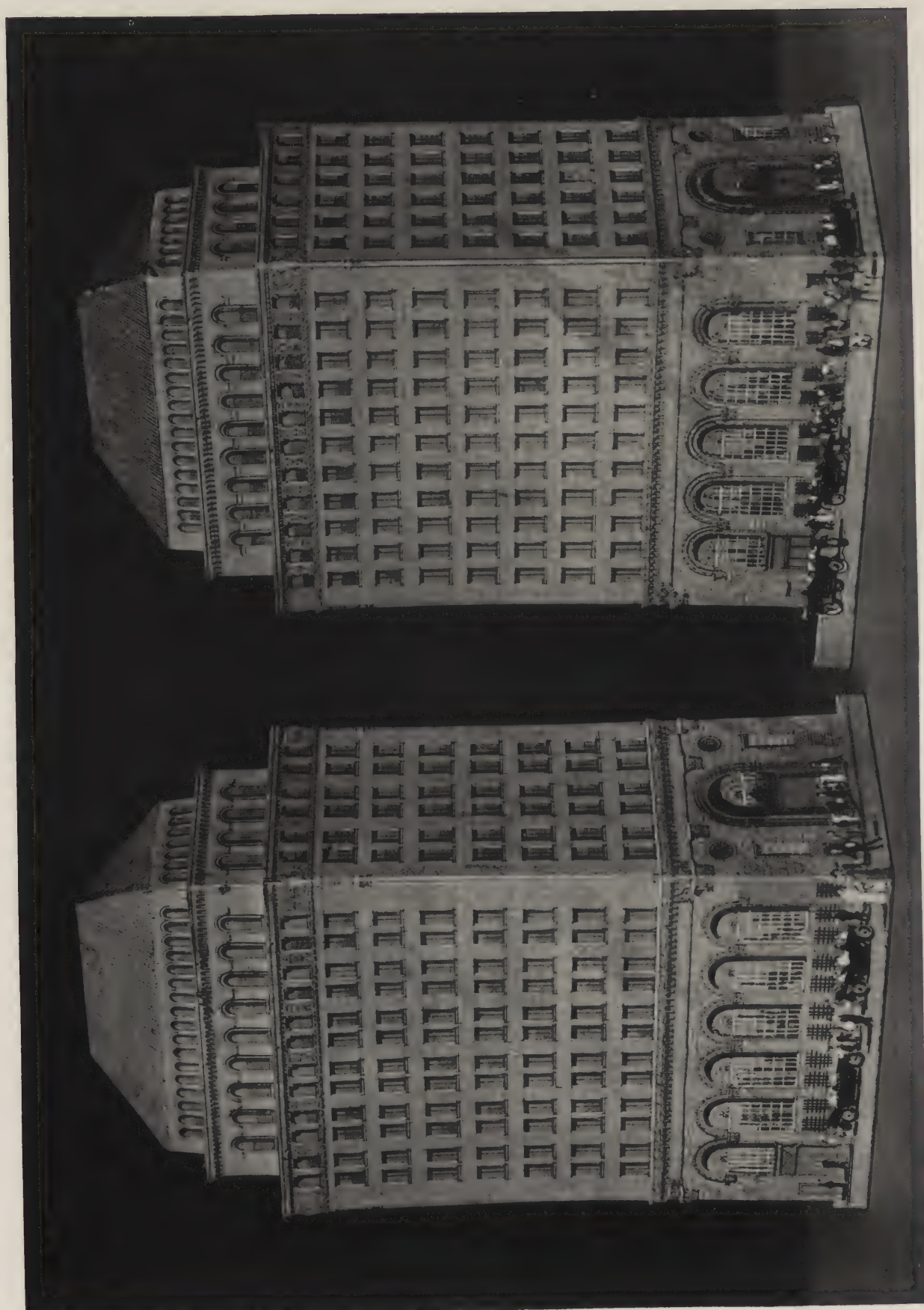


FIG. 1. LIGHT CARDBOARD PRELIMINARY STUDIES FOR BANK BUILDING, COLORED AND SHADOWS CAST



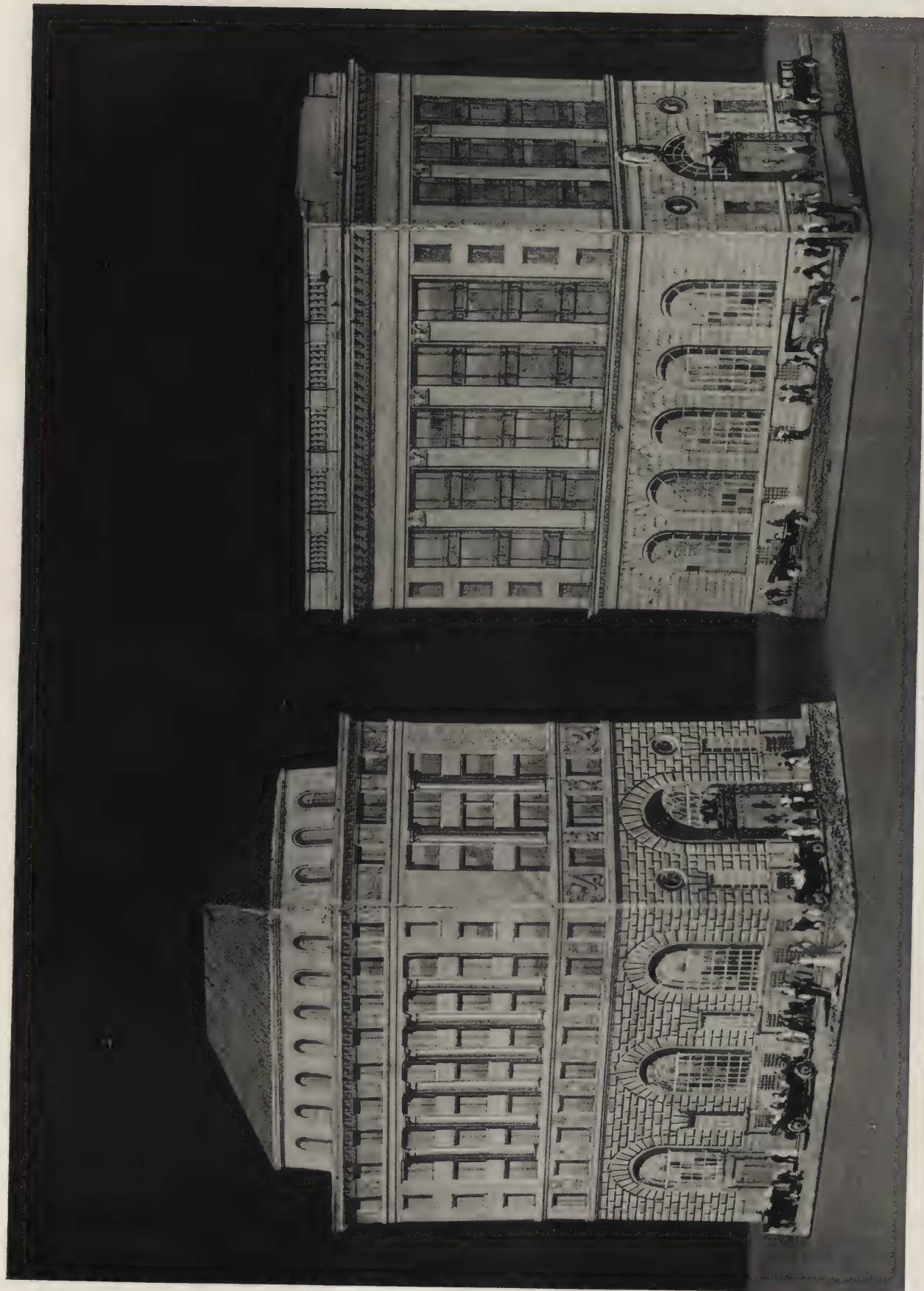


FIG. 2. LIGHT CARDBOARD PRELIMINARY STUDIES FOR BANK BUILDING, COLORED AND SHADOWS CAST



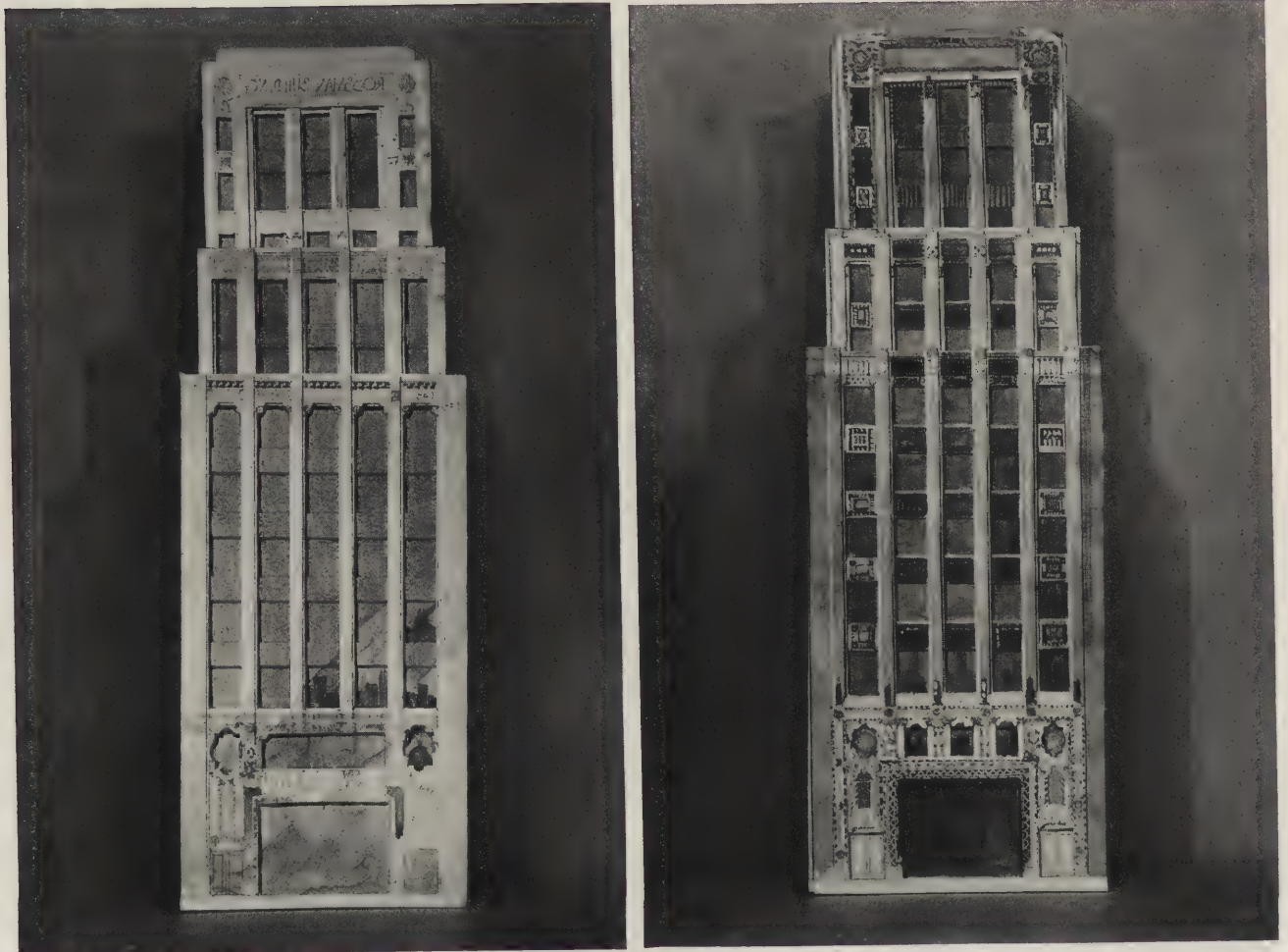


FIG. 3. STUDIES OF BUILDING FOR TILE MANUFACTURERS, MADE OF LIGHT ILLUSTRATION BOARD

By sliding the cross-bar, carrying the plate, along the cleats the excess plastelline is plowed away from the model. If much is to be removed it may be necessary to take it out by stages, but the plate, accurately set, should be used for the final cut. Where there is a setback on one elevation the one at right angles to it must, of course, be carefully made to correspond so that when the two are mitered and assembled in the cast there will be no discrepancies. The setbacks now only require to have their surface detail drawn in, as was done on the main part of the facade, and the building will be blocked out in mass, ready for the modelling of detail.

Those who are acquainted with sculptural modelling will know that the sculptor builds up his design by *adding* his clay or plastelline bit by bit. We, however, will follow the reverse procedure by *taking away*, cutting back from the face of the building for our recesses, window openings, doors, and so on. In doing this we apply our common sense in using modelling tools and contrivances to shorten our labors and bring the work to a conclusion as rapidly as possible. For cutting the long vertical recesses we may use metal plates, specially shaped and mounted on sliding cross-bars in the same way as the large one used for the setbacks. Or we may use

a wire cutting-tool clasped tightly against the cross bar which is then slid along the cleats for the required distance. Window openings may be cut out with the wire tools or may, if they are not too deep, be impressed in the clay by means of the end of a stick of wood suitably shaped.

The ingenious man will find that many short-cuts suggest themselves to him as he works along. Pieces of sheet zinc, thin enough to be easily cut, thick enough to have stiffness, will be found useful. By cutting out the profiles of mouldings for the vertical elements in a strip of this material and fastening the strip to the sliding cross-bar, you can run in, with a moment's work, detail that would take hours to model accurately by building up. This same principle can be applied to all mouldings. Ornament is put on last, and as this is a small scale preliminary study it will probably suffice to scratch it on with one of the tools, though if it is sufficiently large it may be better to model it more carefully.

This whole study is made very rapidly, work on the model we are considering, shown in figure 5, having been completed in the office in about six hours. The plastelline elevations were sent to the architectural modeler's studio in the afternoon and several casts from it were delivered next day. The





FIG. 4. MODEL OF COMPLETE BUILDING MADE OF HEAVY MOUNTED "WHATMAN"

modeler makes glue moulds from the elevation studies furnished him by the architect, casts the work in plaster of Paris, miters the corners, and fits them together, so that what the architect gets is a cast, or several casts, of the complete building to scale. One of these casts is kept intact as a record while the others are changed, as the design is studied, by cutting or carving the soft plaster, or by making additions with white plastelline. Buttresses or piers are added, others are removed, the roof is lowered, bands of ornament are subdued or increased in importance until a satisfactory mass effect is obtained.

When the general design is fairly well "set," a new model at  $\frac{1}{8}$ " scale is made (figure 6) just as was done with the smaller size. This, however, is made much more carefully, for the design is at this stage becoming crystallized and the detail is assuming definite form and position. Several casts of this model are obtained and studied and changed until the designer is satisfied with his solution. These casts are painted with tempera as nearly as possible to the exact colors to be used in the finished building. Before applying the color, a coat of shellac is put on; otherwise the paint would not take properly on the absorptive plaster. The color

is important because a surprisingly false conception of the scale of the ornament may be given if it is seen only in cold white plaster. The color also brings out clearly the relative emphasis given to the different details. The solution being finally approved by the architect, the corrected cast is sent to the architectural sculptor, who, from it and a few governing dimensions, makes  $\frac{1}{2}$ " scale models of the lower and upper portions (figure 7). This he does, of course, under the architect's supervision so that any necessary minor changes can be made as he works. The casts from these final models are brought back to the architect's office where all dimensions of piers, window openings, set-backs, etc., are established for the last time. Working drawings are then made by taking the dimensions directly from the  $\frac{1}{2}$ " scale and  $\frac{1}{8}$ " scale models. It can easily be seen how, through this procedure, the finished building, as far as the exterior is concerned, is made an exact enlargement of the final studied models.

All this has seemed a bit dry in the explaining but the actual working with the clay or plastelline is intensely fascinating. The designer, whoever he may be, cannot help but feel surer of his design when he can see it actually taking form before him



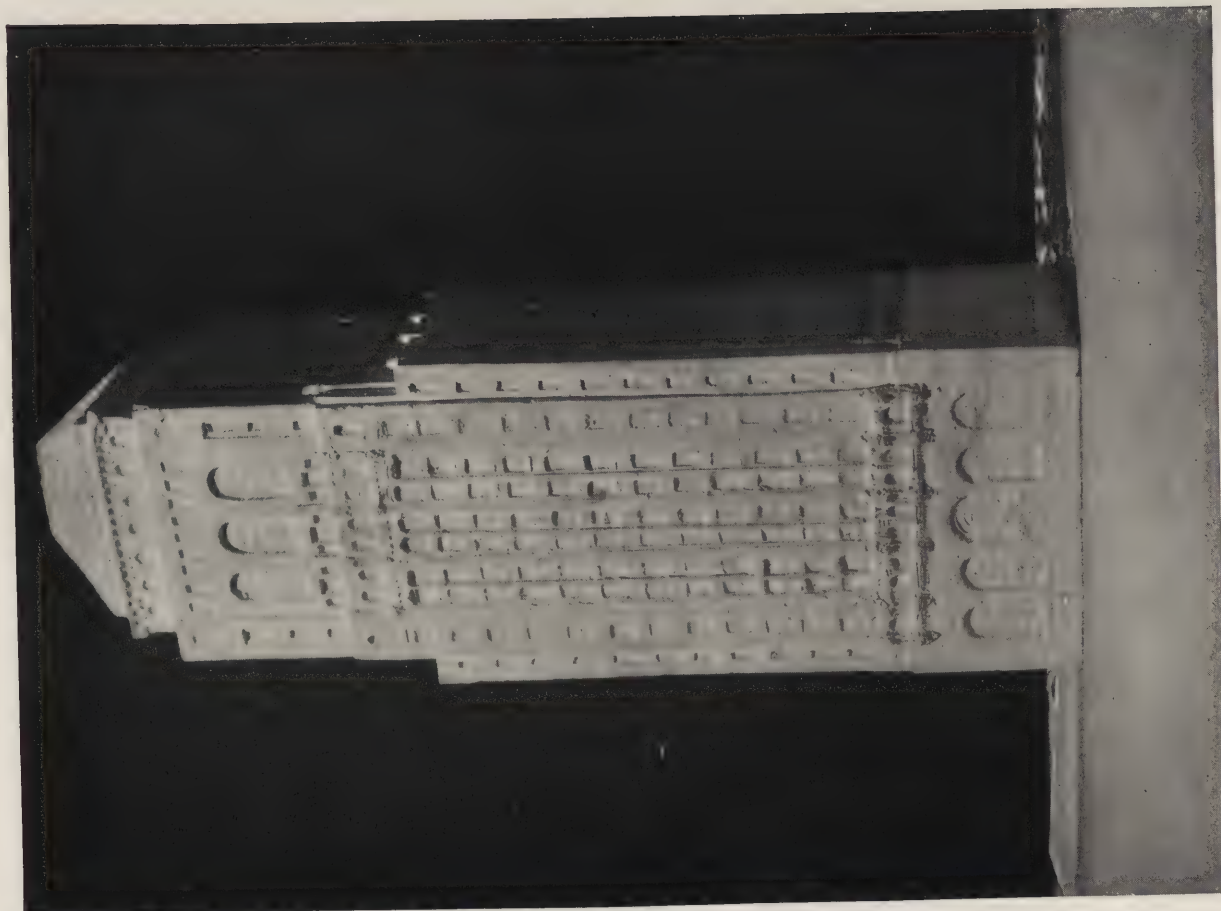


FIG. 5. CAST OF PLASTELINE STUDY AT SIXTEENTH INCH SCALE

LIBERTY TITLE AND TRUST COMPANY BUILDING,

*Dennison and Hiron, Architects*

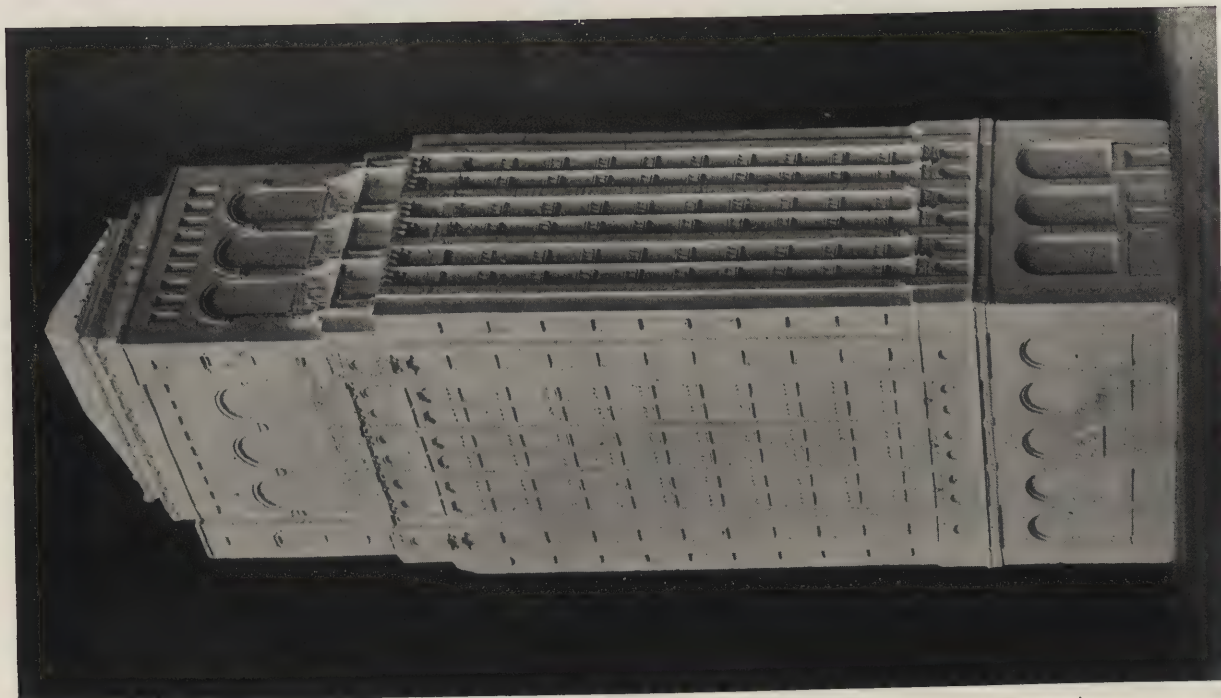


FIG. 6. CAST OF STUDY AT EIGHTH INCH SCALE

PHILADELPHIA, PA.



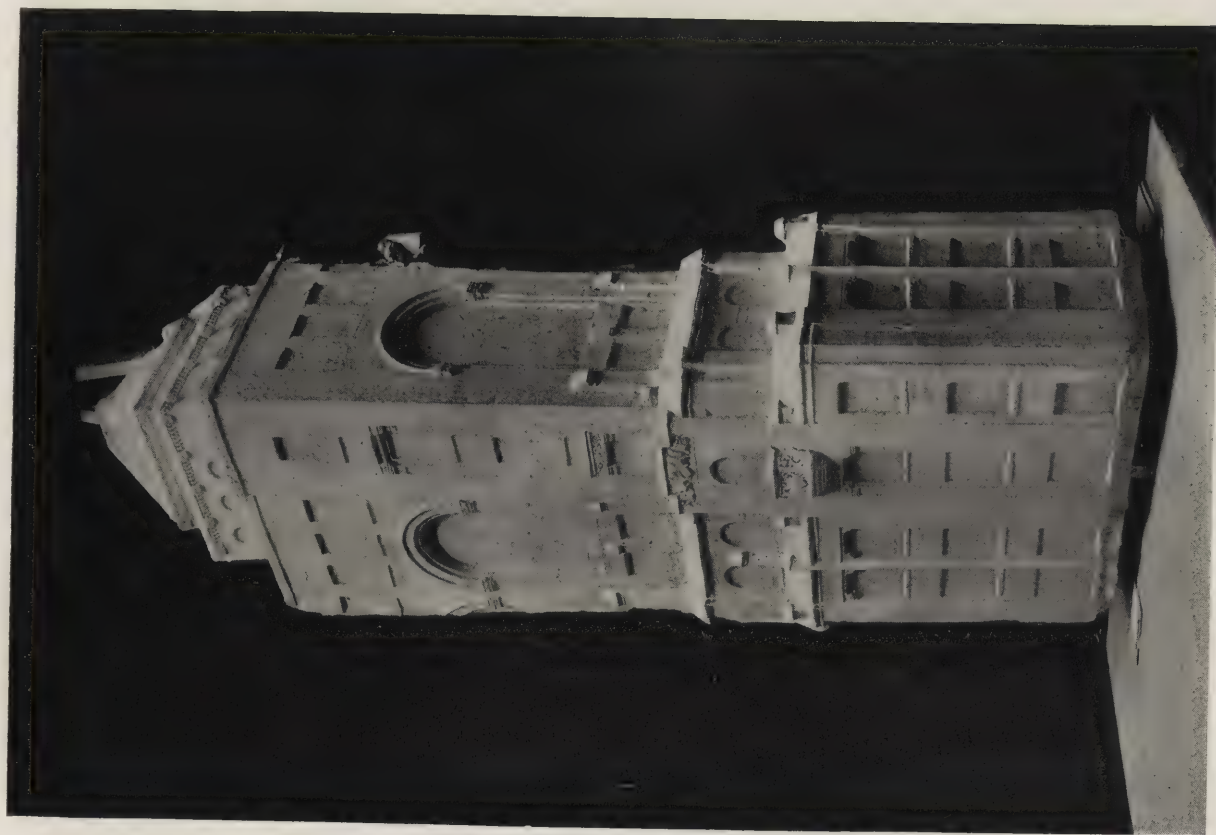


FIG. 7. HALF INCH SCALE MODELS FOR DETAILS OF UPPER AND LOWER STORIES, LIBERTY TITLE AND TRUST COMPANY  
*Dennison and Hiron, Architects*





FIG. 8. PHOTOGRAPH OF QUARTER INCH SCALE MODEL OF BANKING ROOM OF SOCIETY FOR SAVINGS, AT HARTFORD, CONN.

*Dennison and Hiron, Architects*



## STUDYING IN THREE DIMENSIONS

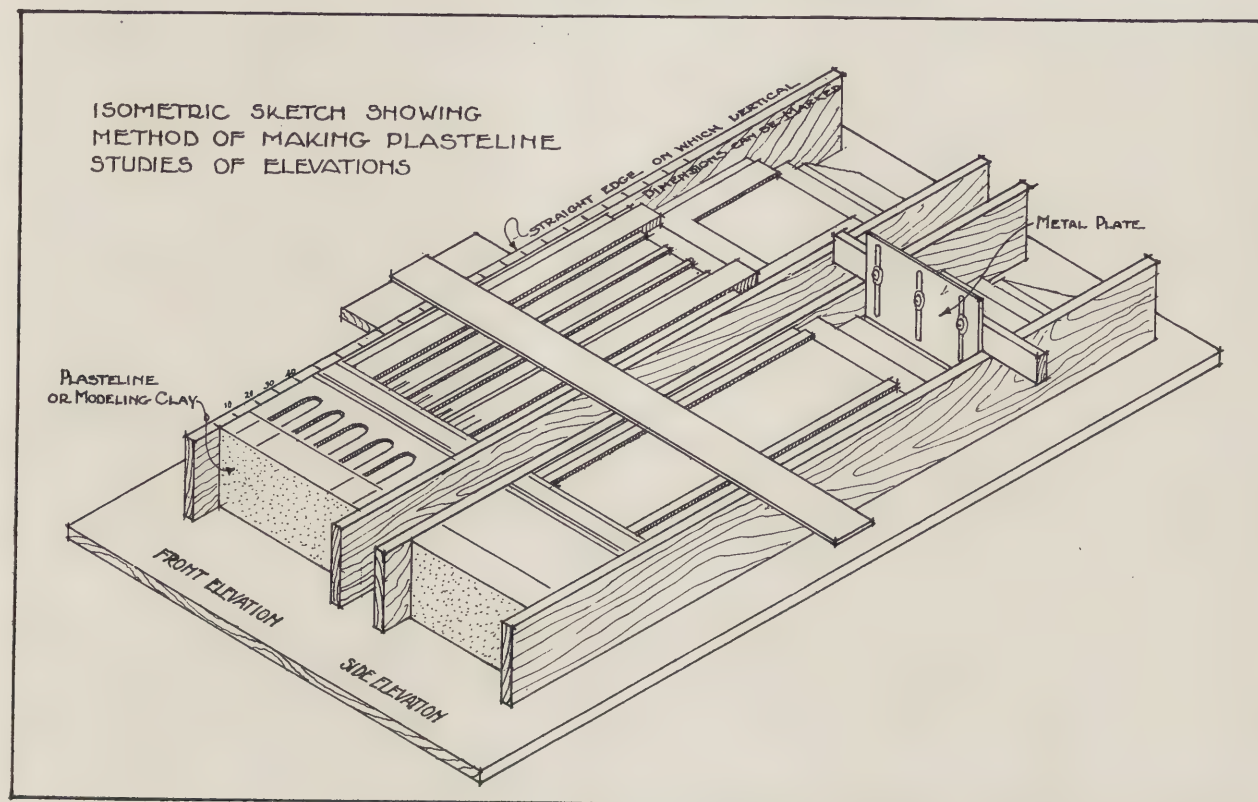


FIG. 9. MODEL IN PROCESS OF LAYING OUT IN PLASTELINE

in three dimensions, instead of having to visualize it from paper elevations or perspectives. He can walk all about it, viewing it from all angles, and can seek out weak points which otherwise might be missed until the building was built. Altogether, studying a design with models is a most satisfactory way to go about the creation of architecture which shall have grace and solidity.

While I shall not go into details about the making of cardboard models I shall say a few words about their use for study. In figure 3 there are shown photographs of what are apparently two cardboard model sketches of alternate designs for the same building. It is the building for the firm of tile manufacturers mentioned before. There is, however, but one model,—that on the left. Elevations of another suggested design have been drawn on paper, cut out, and applied to the first model to produce what amounts to a second. Other elevation studies can be rapidly drawn and rendered *ad lib.*, and held in position with dabs of paste or by rubber bands. In this way a multitude of designs may be very quickly studied without going to the trouble of turning them all into actual models. At the same time the three dimensional effect is obtained and the designs may be viewed as they would be if actually built.

Figure 4 shows a presentation model of a bank building, very carefully worked out in heavy "mounted Whatman" (which is simply sheets of Whatman's drawing paper mounted on cardboard, the whole being  $\frac{1}{4}$ " to  $\frac{5}{16}$ " thick). In this case the

architects were dealing with a lay building committee where it would have been difficult to have conveyed a satisfactory idea of the design by means of drawings. For this reason three dimensional expression was resorted to, and the model was made complete, exterior and interior. All floors were accurately laid out and fitted up, so that by removing the roof and successive floors each story could be seen with all partitions, screens, and so on, in place. Window openings were cut out and backed up with glass upon which was painted the sash. In doing this it was found necessary to give the glass first a light coat of shellac so that the color would take. The whole model was painted with tempera color and furnished an almost perfect picture of the completed building.

In figure 8 we see a photograph of a model by Dennison & Hiron of the banking room of the Society for Savings at Hartford, Connecticut. This model at  $\frac{1}{4}$ " scale was made for the purpose of studying the colors in the ceiling in conjunction with that of the walls. Four different models of the central portion of the ceiling were made so that they could be interchanged. The designs for all of these were the same except in color. A piece of amber glass in the floor of the model allows light to shine up from an electric lamp placed below and so illuminate the room as to produce an amazingly realistic effect when viewed through the entrance doorway. Light is also admitted through the windows which are of glass with painted sash. The floor, walls, and ceilings of this model were made of "mounted What-



## PENCIL POINTS

man" and painted in tempera. The columns shown are of painted wood with cardboard caps. The screen partitions and ballustrade enclosing the working space were made of glass, painted with opaque color. A more skilful retoucher than the writer might have made this photograph indistinguishable from a photo of the real building, but it is perhaps sufficiently realistic to demonstrate the possibilities of models of this type.

At first the working space in this design reached farther over to the left so that the screen hid the lower portion of both of the columns in the rear and produced an uncertainty in the mind of the observer as to whether or not the columns reached to the floor. This defect in design was made clear by the model and as a result the position of the screen was changed to allow the whole length of one column to show from the entrance door. As a result of this change a small wing was added to the right of the building to provide the necessary additional working space. It is doubtful, however, if the architect could have persuaded the bank officers to allow him to make this addition had he not been able to show them the room in model form. At it was, the model brought out the point beyond question.

The materials necessary for making plastic models are relatively inexpensive. Plastelline can be bought for from forty to sixty cents a pound depending on where and how much you buy. It runs about 22 cubic inches to the pound so that a sufficient amount for ordinary purposes would not cost a great deal. Modelling clay is much cheaper.

Whatever the cost of the plastic material, it is a permanent investment, for the clay or plastelline can be used over and over again for different models. If plastelline is used it is best to buy the Italian variety made by Giudice, which keeps uniform in texture and plasticity over a long period of time. American-made plastelline is a little cheaper but is affected by heat and cold and becomes uneven in consistency as it ages. A sculptor friend tells me that he has modelled a piece of sculpture in Italian

plastelline and laid it aside for several years, and that upon resuming work on it the material was just as soft and even textured as when it was new. Most dealers in drawing materials either carry plastelline in stock or can obtain it on short notice. Clay can be bought through dealers in artists' supplies or through terra cotta makers. The board upon which the work is done, together with an assortment of cleats of various dimensions may be made up in almost no time by a carpenter, even an amateur one. The various modelling tools and appliances are surely not beyond the powers of the ordinary draftsman to make. Indeed the man who is to use them,

knowing just how they are to be employed, is better qualified than anyone else to make them to suit in special needs.

The services of the architectural sculptor who makes the casts contribute, of course, a more expensive item. This varies with different localities and in accordance with the extent of the work. Every town does not boast of an architectural sculptor, to be sure, and in the absence of such a man it would be difficult to carry out the making of models as described. In cities, however, there should be no difficulty in finding the right sort of a man to work with.

No matter how intricate the design may be, a simple way can be formed to study it in the

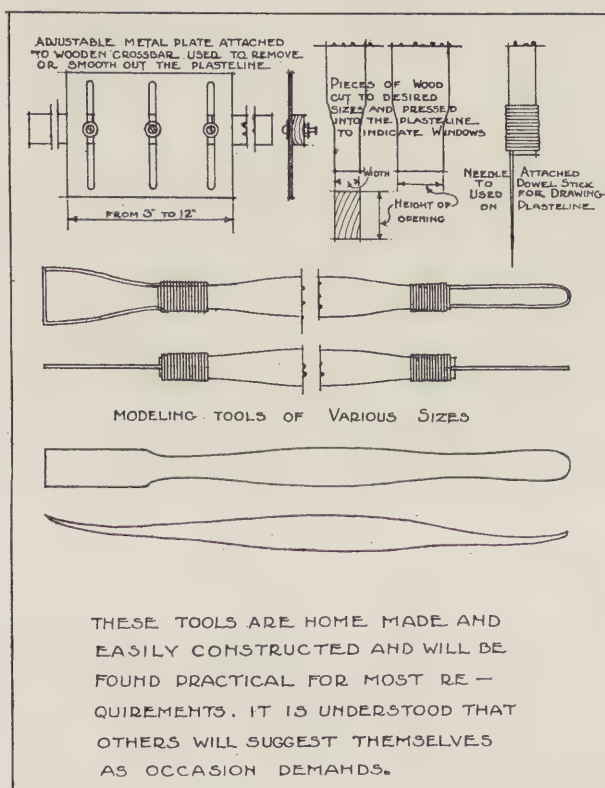


FIG. 10. TOOLS AND ACCESSORIES

model. The method used may not necessarily be any of those suggested in this article, but there is no doubt that through models the draftsman can save himself endless hours of worry over drawings which are in two dimensions and which by their nature can give only an inadequate conception of the form or projection of ornament. And in familiarizing himself with the process of making models, the draftsman acquires another tool of his trade which will serve him well if intelligently applied. Let me repeat that by studying his designs carefully in three dimensions, the designer cannot fail to make his finished buildings correspond more closely with his intentions. Models of some sort are the logical means to this highly desirable end.



# WROUGHT IRON PRECEDENT, II

By Gerald K. Geerlings

(Editor's note: An article in the June issue introduced a series on the subject of Wrought Iron. In this installment are discussed the chief characteristics of the material considered as an architectural adjunct, and the forms which are best suited to its use.)

WE HAVE NEVER SEEN any draftsman come strolling into the office sporting a morning coat and top hat; neither have we seen a worshipper go down the aisle of St. John the Divine enclosed in a smudgy drafting-room smock. That is probably because both draftsmen and Sunday church-goers know better. But—

We have seen wrought iron used like a cast repeating motif in a running frieze, an impropriety which would make even a plumber inwardly remark that labor must have been cheap. We have seen a setting, in which every element was as prim as a Dutch tulip-bed, marred by a playful piece of wrought iron, whose humor was there introduced with about as much appropriateness as could be achieved by planting poison ivy in aforesaid tulip bed. We have also seen cast metal work, sleek, delicately refined as to detail, and superbly finished, yet utterly out of place amid informal surroundings where texture ran riot and rakishness was rampant.

From which it may be deduced, geometrically or otherwise, that the effect produced by drafting-room smocks in St. John the Divine is not so very different from that achieved by decorative wrought iron in a classical Grecian atmosphere, and that a morning coat, further dignified by a top hat, worn in a drafting-room, is not incomparable to a prim and proper bronze casting set in a happy-go-lucky design full of imagination and texture.

And so, that leads us to a critical examination into the niceties of conduct, and a cataloging of the places where the smock may be suitably worn and the morning coat becomingly displayed. We must also consider what effect each, in its proper environ-

ment, can hope to attain and how it may most simply do so.

The keynote of wrought iron is frankness—good work never resorts to hidden devices. There are no concealed rivets, no mean subterfuges. Parts to be

assembled are openly joined. The joining may be accomplished by means of bands as in the grilles illustrated in the previous issue or those accompanying this; for example the one from the Collegio di San Isidoro or the one in the loggia of the Casa del Conde de Toledo. A second device for joining parts together is to split one member so that it may receive another which is thrust through it. This practice is illustrated in figures 1 and 2. It is the principle of the so-called "basket-grille," which has, as a rule, its horizontal members wide but not thick, so as to be the more readily pierced to receive the verticals. In the case of the basket-grille the top and bottom members, as well as the sides, are usually turned into the jamb opening. That solves the termination problem, but where the top and bottom members form rails, as in figures 1 and 3, the rails in question are generally pierced and the vertical members are forced through just far enough to allow their ends to be hammered over slightly,

which really amounts to riveting them in place while hot.

The grilles shown in figures 1 and 2, in common with many other wrought iron grilles, have one series of bars, either vertical or horizontal, pierced by another series at right angles. Executed in a cast material this would, of course, involve complications in the making of moulds. In wrought iron



FIGURE 1  
WINDOW GRILLE IN FIRST FLOOR LOGGIA OF THE  
CASA DEL CONDE DE TOLEDO.

Width of grille 3'9"; height of verticals 4'1½"; frieze at top 6" high; cresting 22" high; projection from wall 10". Vertical bars ¾" square and untwisted. Same for intermediate horizontal bars. End bars 1½" sq. 1½" top and bottom bars 1½" sq. ½".  
(Photo by G. K. G.)



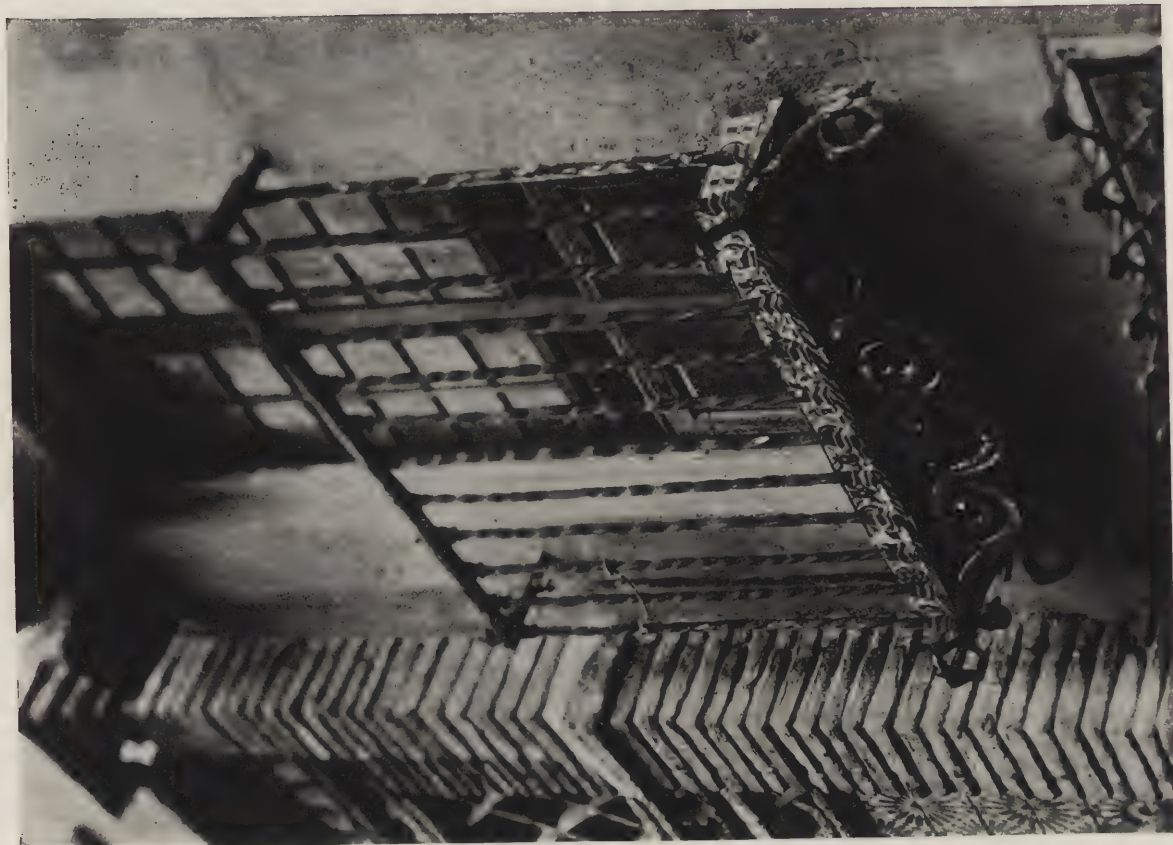


Photo by G. K. G.

FIGURE 3

WROUGHT IRON WINDOW GRILLE AND BALCONY ON STREET FACADE OF CASA DEL CONDE DE TOLEDO, TOLEDO, SPAIN



Photo by G. K. G.

FIGURE 2



## WROUGHT IRON PRECEDENT

it is a simple matter to heat the bar which is to be pierced and to punch it through by means of a tapered punch or hot-chisel struck by a hammer. As the punch is driven through, the hole is opened up to its finished size, and the sides of the bar swell out in the manner so characteristic of wrought iron. A glance at figures 1 and 2 will serve to clarify this point.

Structural members of a grille, as well as good-sized units of an ornamental feature, are often united by banding them together or by running one bar through another. But when the two parts to be connected are relatively small, as in the quatrefoil typical of the Italian grille, or in an ornamental feature such as a leaf, then it is as common as well as an accredited practice to employ welding. An example of this treatment is to be seen in figure 6, showing a detail of the well-head of the Bruck creation. Many of the fish-heads and leaf forms such as occur here would scarcely be possible but for the introduction of the welding method.

The old wrought iron craftsmen seemed possessed of a certain humility complex which at times made them appear conscious that a junction of several parts was not as orthodox as it might have been, although at other times irregularities seemed to amuse rather than annoy them. At all events many of the old grilles vary their regular and geometric conduct by sporting an occasional rosebud of ornament or a leaf at the intersection of engaging members. Where time has not been too respectful of quality, some of these beautifications and refinements have disappeared without damaging the structural health of the grille. But in listing the manners and means of constructing a wrought iron grille the ornamental rosette or leaf at the crossing of the ways deserves at least passing mention.

One of the many appeals which wrought iron should make to the modern architect and small-pursed client is that the finished product depends almost

entirely upon structural members for its beauty. There are no electioneering quantities of oratorical gestures used simply for effect. Just as grilles are meant to keep people in or keep them out, to allow them to stand on balconies, or to do whatever is specified in the most practical and business-like way, —so in the same straightforward manner vertical rods meet horizontal ones and dive through them, following as direct and simple a course as possible; that is all there is to it. Top and bottom rails are

invariably simplicity itself. What is best sense and economy is best wrought iron structure. Tricky and complicated construction cannot be close chums of the anvil.

In the examples of old iron work already illustrated and in those to come, it is of interest to notice the almost elementary means of constructing the grilles or whatever the subject may be. In every case, one critically inclined would inwardly remark that fewer members could hardly have been combined to attain an equal effect. Each is simple, and therefore good iron work. It is the badge of merit of the present day iron craftsman to build up his designs similarly. With the growing popularity of the material there are too many contemporary examples where the basic construction has suffered through the designer's lack of acquaintance with the old classics. The old grilles all look as if they were designed

for iron, not wood. Plates are no heavier than is necessary. Rods do not pretend to be balusters. There is contrast between heavy and light members for the sake of variety and good design to be sure, but in no case do the members even approach clumsiness.

There are wide differences between the arrangement of structural members in designs peculiar to different countries, as is shown by a comparison of the Italian all-over design laid out in rectangular panels, in contrast with the Spanish type with its favoritism for a series of pleasant varied verticals. That, however, is a separate subject better con-



FIGURE 4  
COLLEGIO DI SAN ISIDORO, LEON, SPAIN  
*Detail of wrought iron window grille in apse. Approximate width 2'3½".*  
(Photo by G. K. G.)



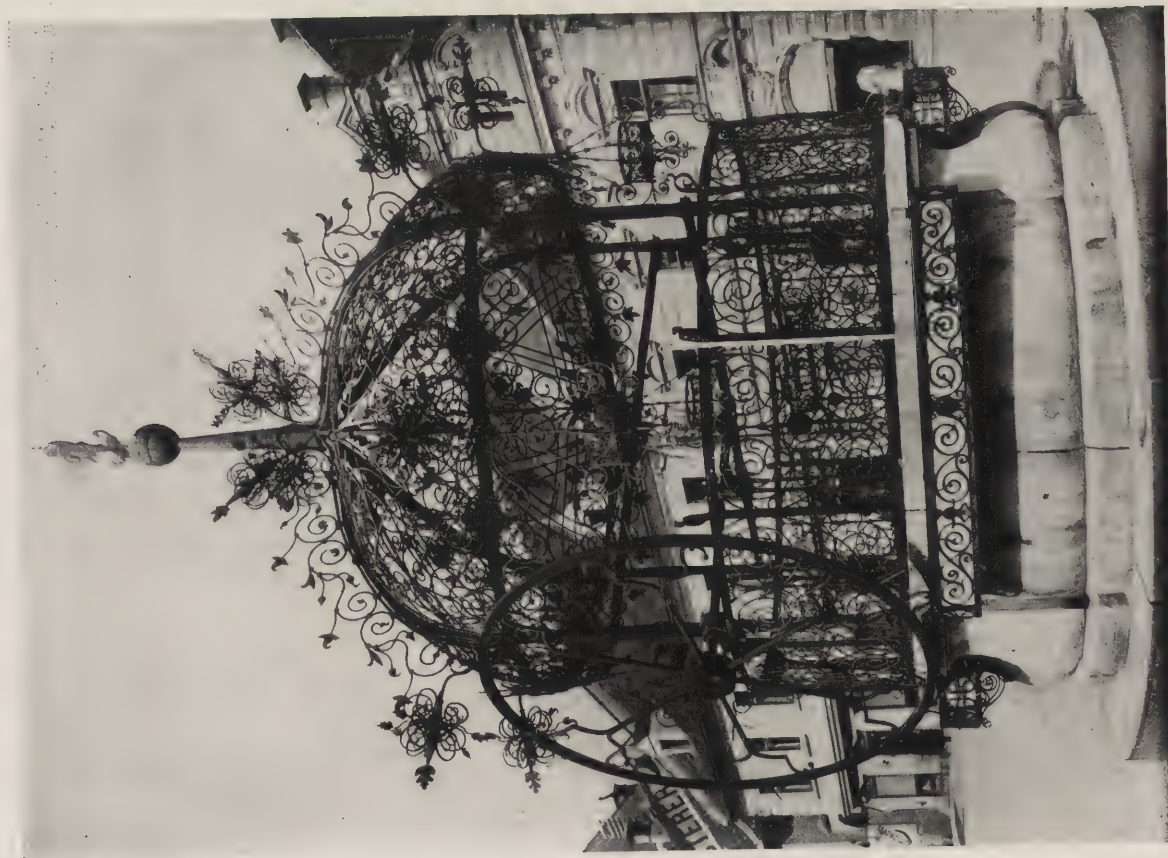
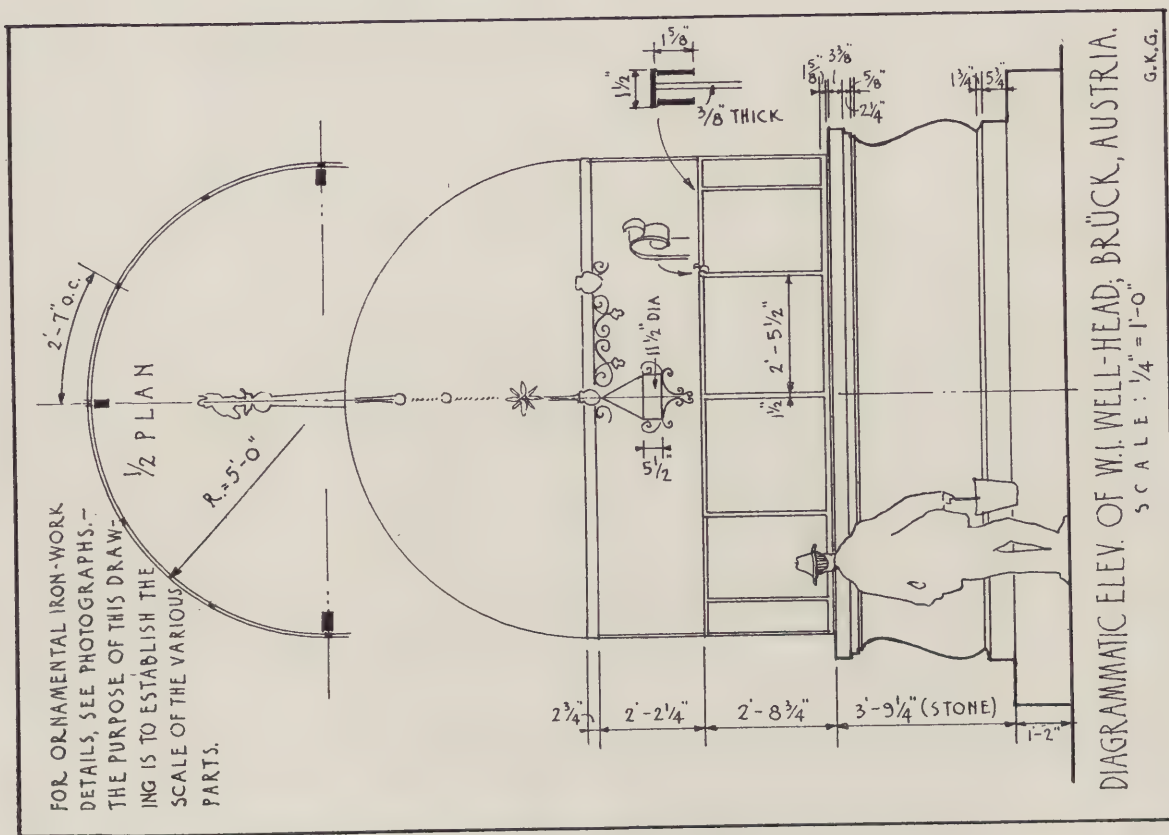


Photo by G. K. G.

FIGURE 5.

GENERAL VIEW AND DIAGMMATIC ELEVATION OF THE WROUGHT IRON FOUNTAIN HEAD, BRÜCK, AUSTRIA  
 This fanciful design in itself would be of doubtful inspiration for modern work, but its details are suggestive of practical application as in  
 crestring, all-over design and so forth.





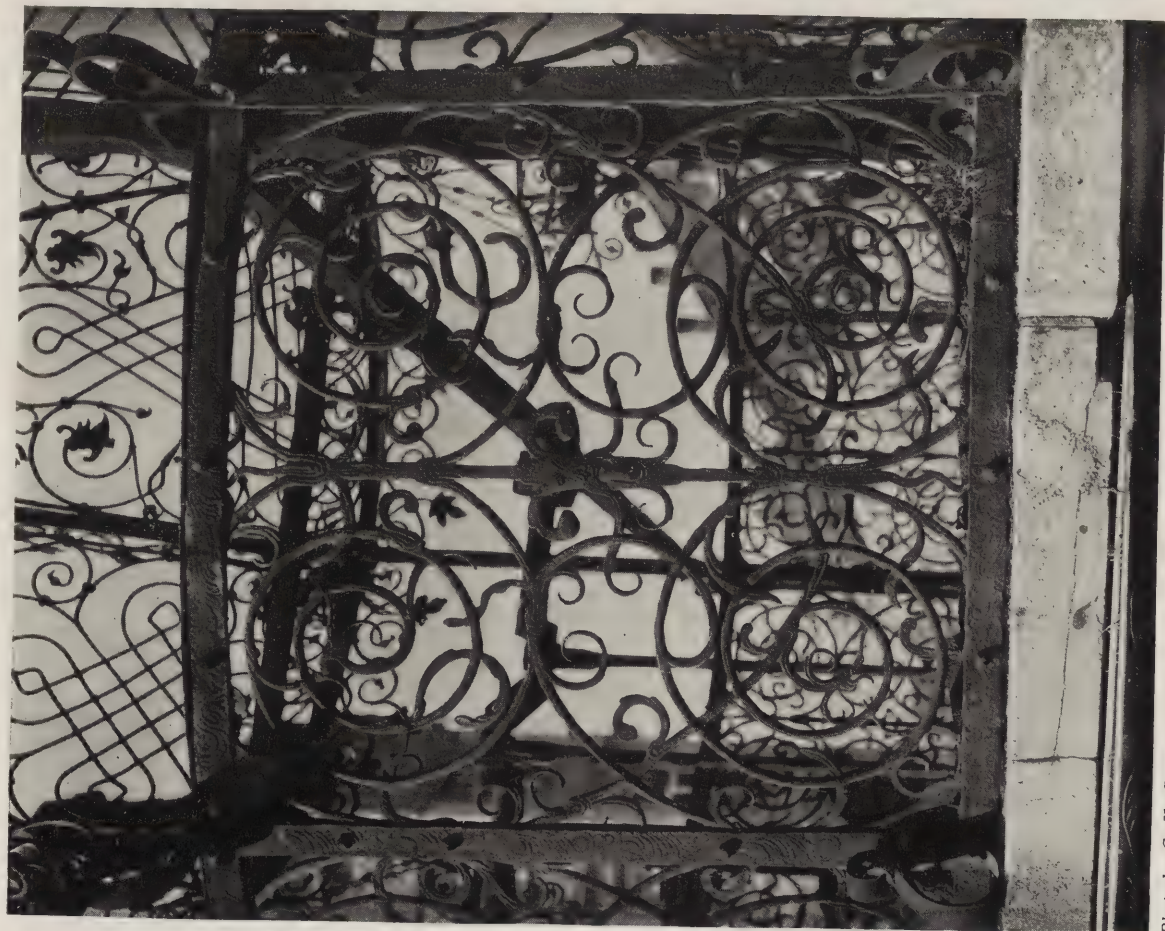


Photo by G. K. G.



Photo by G. K. G.

FIGURE 6

DETAILS OF FOUNTAIN HEAD AT BRUCK, AUSTRIA, SHOWN ON OPPOSITE PAGE

*At the left is one of the twelve different panels around the bottom; at the right is one of the terminal crestings and lighting fixtures.*





Photo by G. K. G.

WROUGHT IRON WINDOW GRILLE IN DESERTED CHURCH ON S. GUISTIANA CANAL, VENICE.

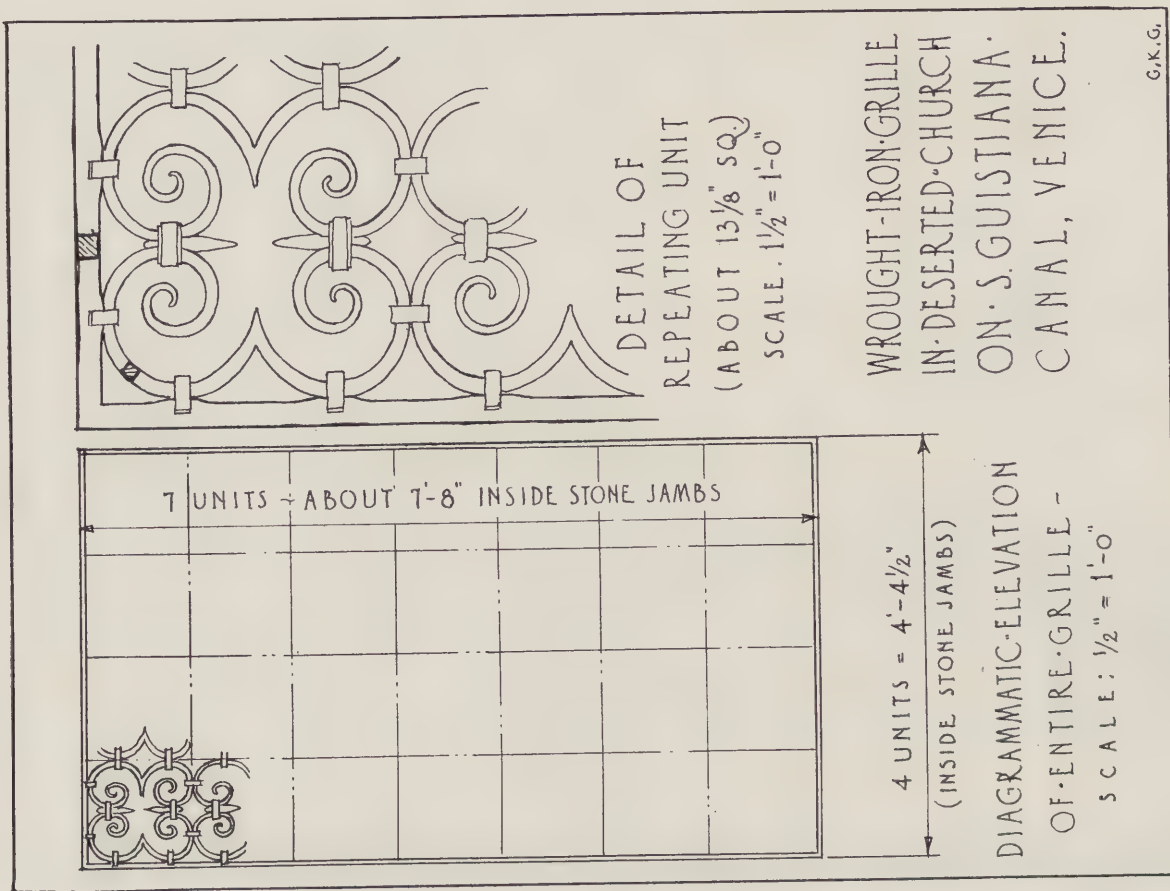


FIGURE 7



# WROUGHT IRON PRECEDENT

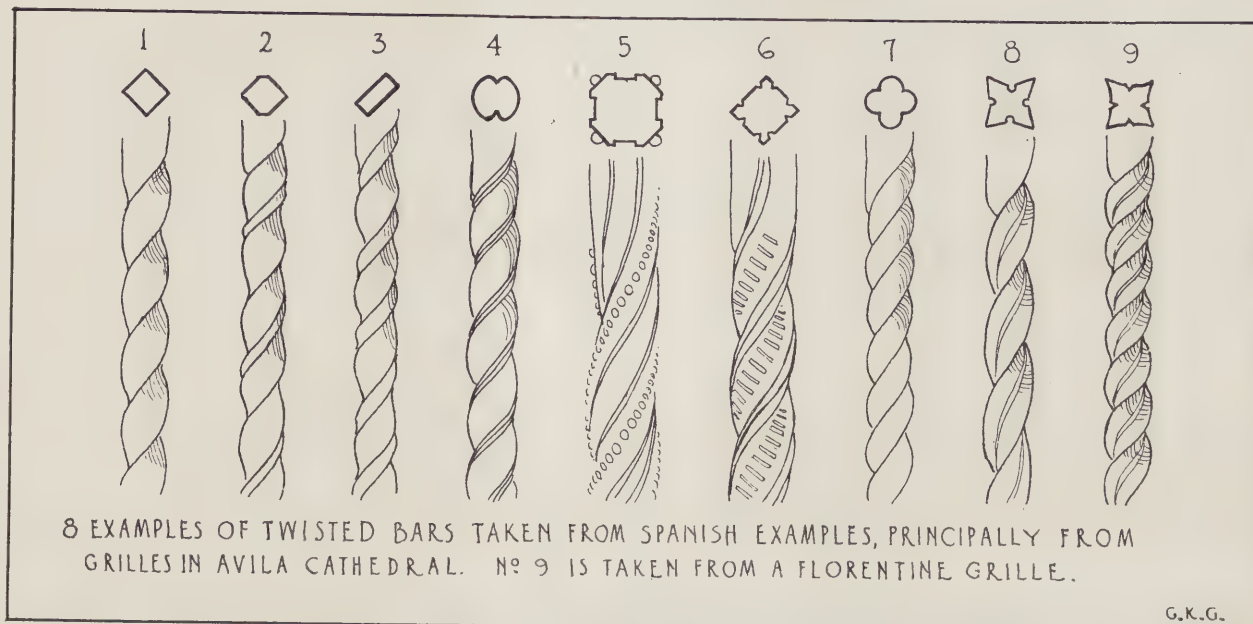


FIGURE 8

sidered under the title of "Iron Design." At the moment we are more concerned in noticing that in all good iron work, regardless of national origin, a similarity exists as already pointed out: members are no heavier than they need to be for structural purposes; they are combined by very obvious and simple methods; their charm lies largely in that simplicity and naiveté.

On first thought it might seem that the designer's wrought iron vocabulary was decidedly limited. His products can be fashioned from rods square or round in section or from plates of varying widths and thicknesses. That is all. Whatever else is desired must be accomplished through the craftsman's ingenuity. Not that it is impossible for a master craftsman to fashion jewelry from iron! He could, but it would be fabulously expensive. The architect's concern is to produce the most enviable effect for the smallest cost—the first requisite of modern architecture. Consequently it is of primary importance to have a working knowledge of the simplest wrought iron forms (ergo the most inexpensive) in order to combine them into a harmonious design. For inspiration we may turn with perhaps greatest profit to the Spanish, as for example the window grille of the Casa del Conde de Toledo, figure 2. This *reja*, built with the minimum amount of work and material, embodied at once a very efficient protection from the sometime troublesome citizens of Toledo, as well as a design above reproach. The only adorning features are the two simple scroll-brackets below and the cresting above, wrought from flat bars with imaginative little quirks, swellings, and leaves to make them genteel. It was all a simple matter on the anvil.

The last cited example of grille consisted only of square bars with their faces turned to an angle of 45 degrees with the plane of the wall,—constituting the ABC of the wrought iron catalogue, let us say. The next degree of square bar usage is illustrated

in the simple balcony rail, figure 3, where the verticals are all twisted. Variety in the twists is here responsible for an unusually pleasing appearance. In a cast material the models and moulds for these sundry twists would be so expensive that a single type would probably have to suffice, whereas in the wrought product it would be difficult to turn out ten bars exactly alike. In the illustration there has been a bar with a few twists placed beside one with many, or else made envious by a neighbor with a few twists, a straight run, and a few more twines. The actual labor involved in thus turning out a variety was not a mil more expensive than if each bar had been absolutely like every other one. In fact it would be costly indeed to guarantee that all would be uniform. Yet where the contractor is not interested in his work beyond making all the money possible (as in the vast majority of modern cases) he would very likely make a higher charge in estimating a grille with a variety of twists than for one with only a single type of bar. But if such an unscrupulous wrought iron worker becomes the successful bidder on the work and seeks to take advantage of the architect's lack of knowledge by increasing the price of the article when he should really do the reverse, then let it be most emphatically stated that it is better to make the job cast iron! Wrought iron is one of the most human of materials, and it requires a human being with enthusiasm and genuine interest to produce happy results. Good work cannot be ground out on a commercial basis by a mere money seeking concern.

Until one has become engrossed in the wide range of dormant possibilities in even the humble raw wrought iron rods, it is impossible to comprehend what may be done by a little ingenuity and effort. The various bars drawn in figure 8 give only a shabby idea of the countless ways of twisting bars, but show some of the simpler sections which can be used. One of the most easily wrought, and one



which contributes very appreciably to any series of bars, is No. 2 of figure 8. It is merely a square bar which has been hammered on one of its edges when hot. The edge opposite has been equally flattened by the anvil. When twisted it gives the effect of a bar with an intricate section yet the operation is so simply done as to be almost negligible as to time and cost involved. But unless the architect knows how simple and inexpensive this form is, he is either loath to show it on a drawing, or, after the contract is "let," is easily convinced that his full size detail is a "radical departure" from the scale drawing and is bullied by the contractor into believing that a huge "extra" would be due if the design were executed as shown.

Bars oblong in section do unexpectedly pleasant things when twisted. Round bars given an incision along their length will also perform surprisingly,

although it is needless to point out that without the previous chisel incision twisting would do little good. The splitting of square bars for a part of their length, as in the handsome grille of figure 1, opens up a whole realm of design. As will be seen later, the Spanish were the foremost among the craftsmen who utilized this form. For the present it suffices to remember that splitting a bar is perfectly good wrought iron technique, is easily and readily done by a craftsman, and in combination with welding offers one of the main fortes of Spanish design.

EDITOR'S NOTE: In the previous issue the cut on page 357 illustrating a bronze knocker was erroneously captioned as being "hand wrought" where obviously it was really "cast." It was intended to show, by contrast with the flag pole socket on the same page, the typical cast bronze treatment as opposed to wrought iron.



LUCCA—WROUGHT IRON LUNETTE IN PALAZZO ORSETTI (XVI CENTURY)

*Width between stone jambs: 7'8½". (Photo by Alinari.)*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





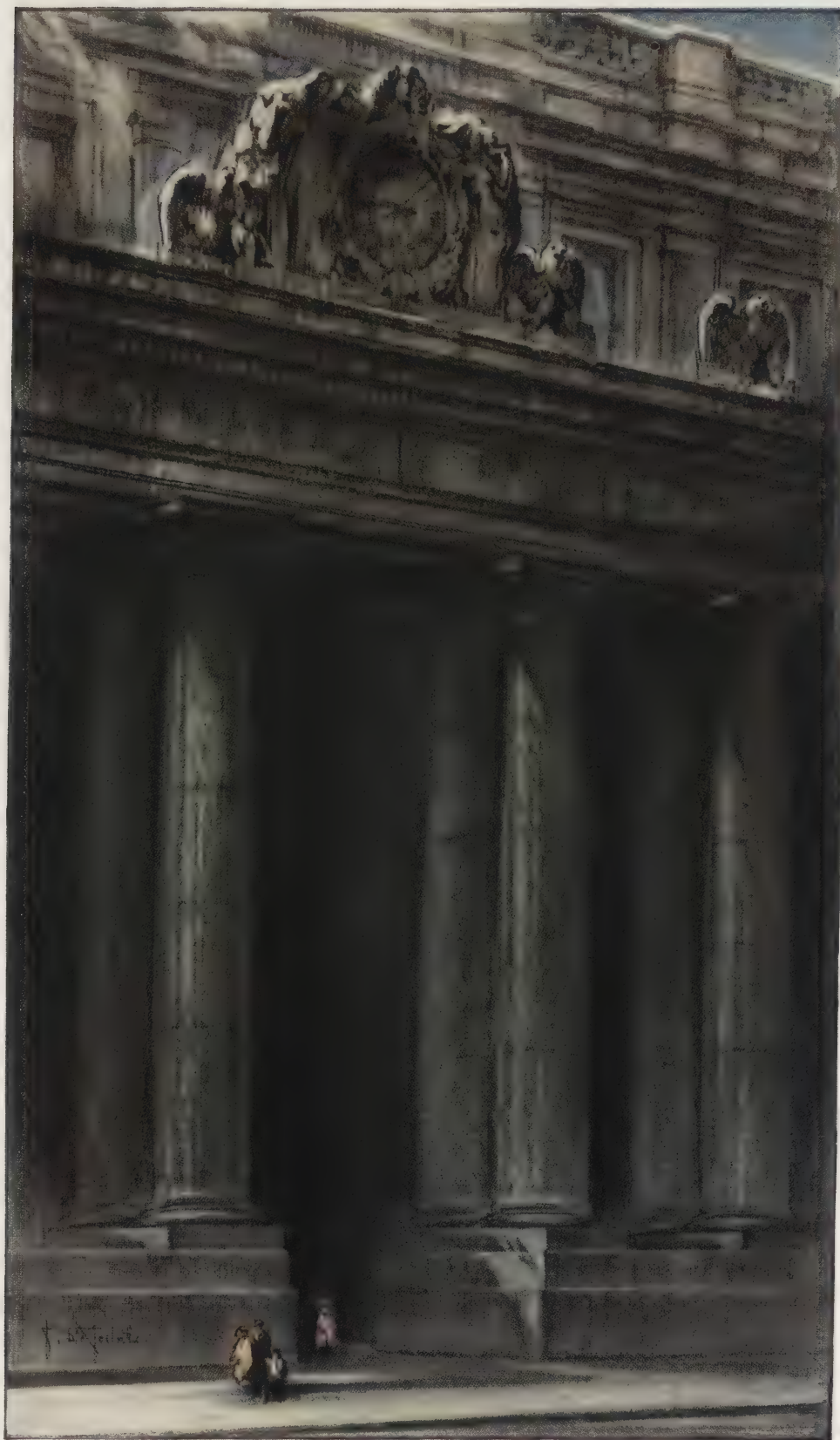
RENDERING IN WASH BY J. FLOYD YEWELL

*Size of Original 21 $\frac{3}{8}$ " x 29 $\frac{3}{4}$ "*

*New York County Court House, New York*

*Alfred Hopkins, Architect*





RENDERING IN PASTEL AND CRAYON BY THEODORE DE POSTELS

*Size of Original 10½" x 18"*

*Pennsylvania Station, New York*

*McKim, Mead & White, Architects*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





LITHOGRAPH BY C. O. WOODBURY  
STREET SCENE, INNSBRUCK, AUSTRIA



PLATE XXII

VOLUME VII

NUMBER 7

*C. O. Woodbury, whose lithograph is reproduced in this plate, is one of the best known American workers in the Graphic Arts. This particular print shows clearly his exquisite technique which is exactly suited to the medium.*





PAINTING IN OIL BY CARLO CIAMPAGLIA  
DESIGN FOR AN OVERMANTLE



PLATE XXIII

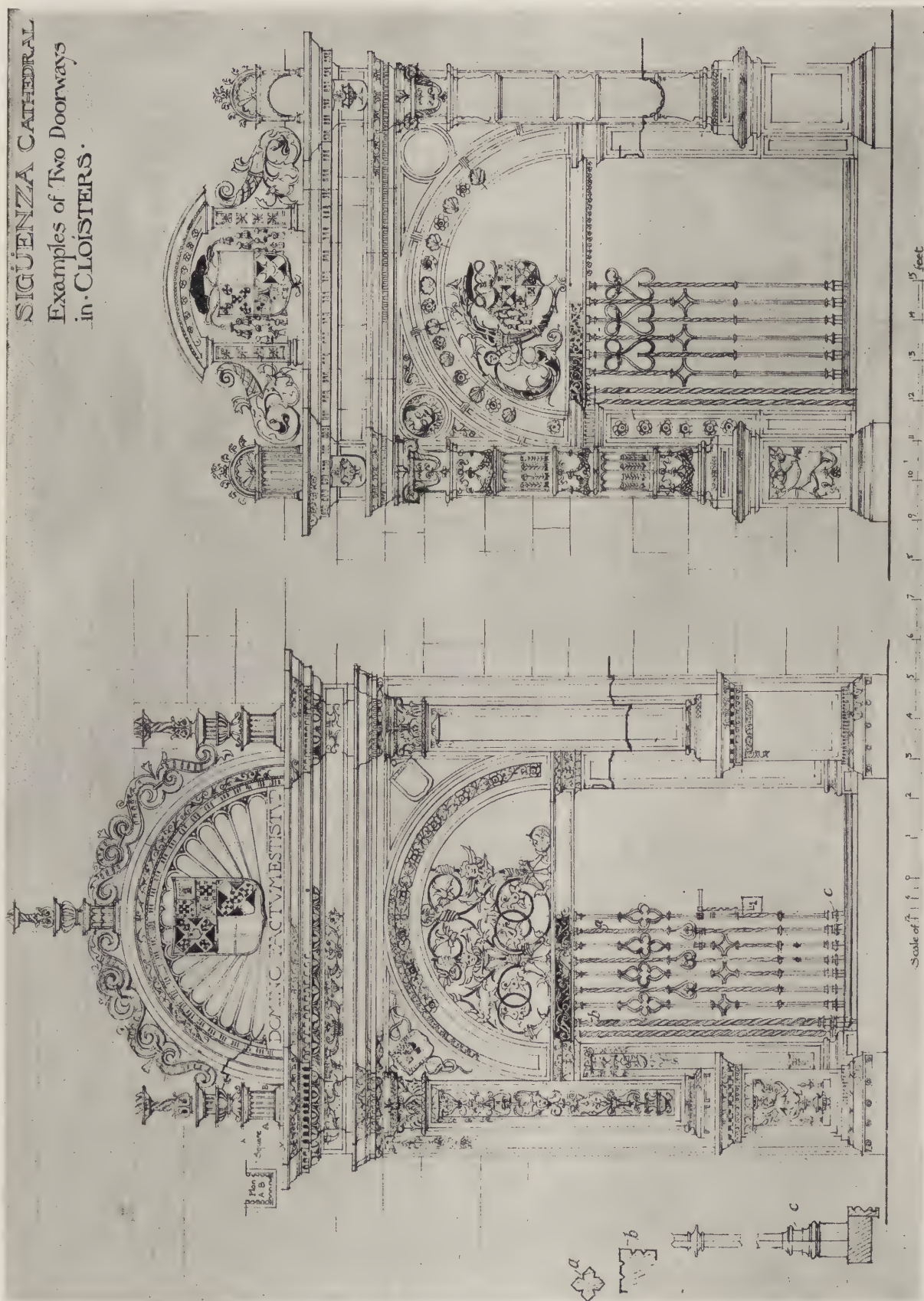
VOLUME VII

NUMBER 7

*This painting, by Carlo Ciampaglia, represents a conventionalized Italian landscape in which huge golden-green trees set against a blue sky and purple hills combine with a rich green foreground, enlivened by bright spots of color in the figures, to produce a most agreeable ensemble.*



SIGÜENZA CATHEDRAL  
Examples of Two Doorways  
in CLOISTERS.



"RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN"

A PLATE FROM THE WORK BY ANDREW N. PRENTICE

PENCIL POINTS



PLATE XXIV

VOLUME VII

NUMBER 7

*This plate shows examples of two doorways in the Cloisters of the Cathedral, Sigüenza, which was founded by Cardinal Carvagal in 1507. They are built of a fine cream colored stone, and bear the arms of Don Fadrique of Portugal, who was bishop of Sigüenza in 1530. Their appearance is greatly enriched by the ornament and moulding being gilded. The iron screens, standing out against the dark recess of the doorway, greatly enhance the effect.*





STATUETTE BY EDWARD McCARTAN

GIRL WITH GOAT

PENCIL POINTS



PLATE XXV

VOLUME VII

NUMBER 7

*We reproduce on this plate one of Edward McCartan's most delightful garden sculptures. This artist is now engaged upon a new group which we shall hope to present to our readers in an early issue.*



# BE YOUR OWN BRICK SCHEDULE

By J. Woolson Brooks

THERE IS SOMETHING sinister about a schedule that disturbs the poise of any human being. A time table, an income tax blank or even a bill of fare confronts one as an invention of the Devil for humiliating one's intelligence. Fortunately, brick schedules have always been a very mild form of this pest, and of late years, the standardizing of brick and of joints has eliminated all of them but the one captioned "2¾".

Now a brick schedule is simple, chaste and refined in itself, but it is not always present when duty calls; in fact, it is one of the most easily mislaid tools the draftsman uses. Here is a completely painless and foolproof method of eliminating the 2¾" schedule. That is practically the only coursing used today, since it employs the standard 2¼" brick and the usual ½" joint.

The most common use of a brick schedule is to check a given vertical dimension to determine if it will span an exact number of courses, and if not, to find the nearest figure which will "work" brick. To check a certain figure without a schedule, *add the number representing inches to the number representing feet as if they were both inches*. If the sum arrived at works brick, the original dimension is all right. This sum will usually be one of the first six or eight steps of the table, which automatically linger in your mind. Even if they don't, it is the work of a moment to add them: 2¾", 5½", 8¼", 11", 13¾", 16½", 17¼". If the sum is a higher figure, subtract 11 from it, or 22, 33, or any other multiple of 11 to reduce it to recognizable size.

If, however, the sum falls short or is too much, you must correct the inches column in the original figure by the same amount that it takes to fix the doctored figure.

As an example, suppose you have a dimension of 18'-4". Add 18" plus 4" equals 22", since 11" works brick, and also do all multiples of it, therefore the figure 22, or its component, 18'-4" will work. If the dimension were 18'-6", the sum would be 24, which doesn't come out to an even joint. Therefore, you must subtract 2" or add ¾" to make the 24 work. This would alter the original dimension to 18'-4" or 18'-6¾". In the same way 2'-0¾" works because 2¾" does, or 5'-0½", etc., etc.

Now suppose you want to find the height of a given number of courses. Let us attack it algebraically:

$$2\frac{3}{4}" = \frac{11"}{4}$$

$$\text{This can be written } \frac{(12 - 1")}{(4)}$$

$$\text{Or this way } \frac{(1'-0") - 1"}{4}$$

$$\text{Wishing to know the height of X courses, } X \frac{(1'-0") - 1"}{4} = \frac{X' - X"}{4} \text{ or what that amounts to}$$

to is to *divide the number of courses by four and subtract the quotient written as inches from the quotient written as feet*.

If we wanted to know how high 80 courses were, we would divide 80 by 4, giving 20. We next subtract 20" from 20',

or 20'-0" minus 1'-8" equals 18'-4".

Suppose we wanted to know the height of 37 courses:

$$37 \div 4 = 9\frac{1}{4}$$

Then 9¼ feet minus 9¼ inches is the same thing as 9'-3" minus 9¼" which gives us 8'-5¾", the answer.

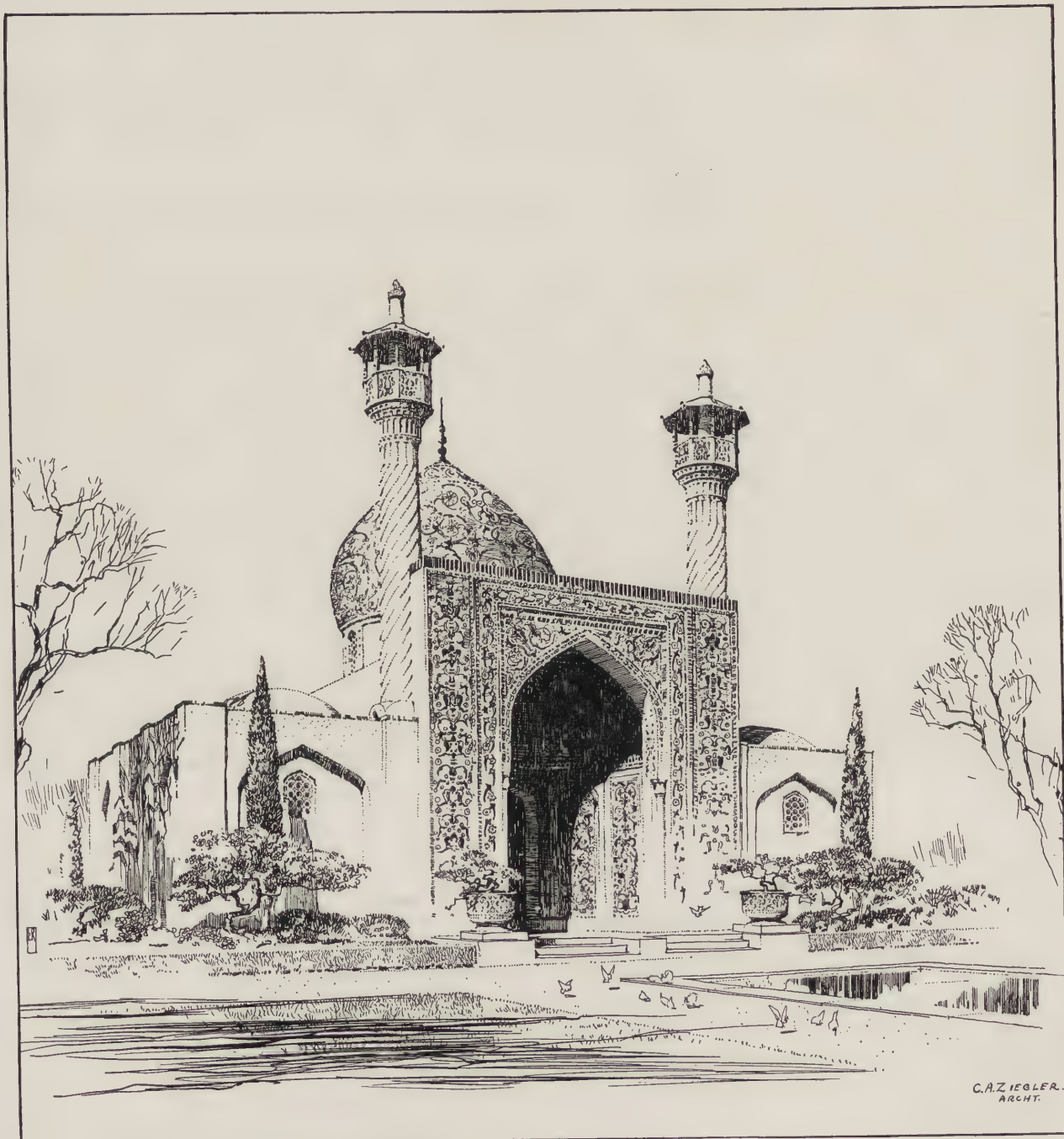
To reverse this process, and determine the number of courses in a given height, divide the figure into its two separate parts, feet and inches. Multiply the foot column by four and at the same time add the number representing feet to the number representing inches, making a total representing inches. Determine by inspection the number of courses in this sum, remembering that there are 4 courses in 11 inches, and add that number to the product first obtained by multiplying the foot column by four. An example will show that this apparently complicated rule is in reality very simple. To find the number of courses in 17'-5":

$$\begin{array}{r} 17 \quad 5" \\ \times 4 \quad + 17" \\ \hline 68 \text{ courses } 22" \quad \text{There are 8 courses in } 22" \\ + 8 \text{ courses} \\ \hline \text{Total } 76 \text{ courses} - \text{Answer.} \end{array}$$

$$\begin{array}{r} \text{Or try } 8'-5\frac{3}{4}" \\ 8 \quad 5\frac{3}{4}" \\ \times 4 \quad + 8" \\ \hline 32 \text{ courses } 13\frac{3}{4}" \text{ or } 5 \text{ courses} \\ + 5 \\ \hline 37 \text{ courses} - \text{Answer.} \end{array}$$

Perhaps the last two formulae will be burdensome to remember, but the first rule of thumb given, the method of determining whether or not a given dimension works to a brick joint, fits all cases and all weathers, and will not tax the lightest head.





PEN AND INK RENDERING BY LOUIS C. ROSENBERG  
PERSIAN BUILDING AT THE SESQUICENTENNIAL INTERNATIONAL EXPOSITION, PHILADELPHIA, PA.





# W H I T T L I N G S

## THE SESQUICENTENNIAL EXPOSITION

THE SESQUICENTENNIAL INTERNATIONAL EXPOSITION had its formal opening on May 31st, in Philadelphia. The main buildings are of stucco with decorations in pastel shades. Exposition artists have adopted a modification of the modern trend of public buildings, using the "set-back" principle and adapting it to the comparatively low structures of the Exposition. Fine landscape decorations and sculptural work add to the whole.

At the main portal of the Exposition grounds are two pylons 55 feet high, surmounted by colossal figures called "Heralds of the New Dawn", emblematic of the story of American freedom. At the head of the Court of Honor, between the Place of Liberal Arts and the Palace of Agriculture, rises the impressive Tower of Liberty, more than 200 feet high, surmounted by the Light of Independence, commemorating the inspired vision of the Signers of the Declaration of Independence. This Tower of Light can be seen from all parts of the city and forms the central unit in the elaborate lighting scheme of the Exposition.

In the great Court below, named the Forum of the Founders, are memorial shafts to the Signers. The great Stairway of Nations nearby leads down into the Grand Plaza where stand the two heroic lions of Courage and Peace. Other decorative groups form an important part of the Stairway and the Colonnade of States is the feature of the background to the great exhibit of American sculpture.

Contemporary art, examples of work done within the past fifty years, the first showing of work of many European artists, paintings made by early American artists, etchings, wood carvings, engravings, lithographs and drawings are features of the Art Exhibits.

The lighting of the Exhibition is on a strikingly elaborate scale. The Tower of Light is surmounted by two 62-inch search-lights, the largest ever built. A battery of fourteen super-power searchlights will be used in a remarkable auroral display, representing the greatest concentration of light ever seen in one spot in the history of the world. The combined searchlights total 6,300,000,000 candle-power and the radiance from it can be seen as far away as New York and many miles out to sea.

Twenty-five thousand 100-watt lights cover the surface of the gigantic Liberty Bell at the entrance to the Exposition grounds. The bell itself weighs 42 tons and is suspended from supports 70 feet high, with a road clearance of 20 feet 6 inches. Ornamental standard and flood lights illuminate the Grand Court and bring out the towers of the exhibition palaces in a blaze of color. The Gladway, which adjoins the Grand Court on the west, has brilliant illumination, and its lagoons are swept by vari-colored floods of light.

Hon. W. Freeland Kendrick, Mayor of Philadelphia, is president of the Exposition. On the administrative staff are John Molitor, supervising architect; F. A. Robinson, landscape architect; Charles E. Tefft, chief of the Sculpture Division; W. DeL. Dodge, Chief of Color; and L. C. Darrin, Chief of the Electrical Division. R. J. Pearse is Director of Works and W. P. Wetzel, Assistant Director.

Louis R. Barras is the architect in charge of the construction of the two buildings which represent New York State. One building is a replica of old Federal Hall in old New York where Washington was inaugurated as first president of the United States. The second is a replica of Washington's headquarters at Newburgh on the Hudson where Washington refused to accept the crown as King of America.

Women of the nation are represented, through the Women's Board of the Sesquicentennial, by a reproduction of historic old High Street, now Market Street, in Philadelphia, with the replicas of famous places including the Town Hall, Market-place, homes of Washington and of Robert Morris, and Benjamin Franklin's printing-shop. The architects for the High Street Committee are R. Brognard Okie, E. P. Bissell, and John P. B. Sinkler.

Two notable structures of the Exposition are the \$3,000,000 concrete Stadium accommodating 100,000 and the Audi-

torium seating 20,000. The great exhibition halls include the Palace of Agriculture and Food Products, the Palace of Liberal Arts and Manufactures, the Palace of Machinery, Transportation, Mines and Metallurgy, the Palace of Education and Social Economy, Palace of Fashion and Palace of Fine Arts. More than twenty-five foreign countries are participating in the Exposition either officially through their governments or unofficially through industrial groups.

## AN OPEN LETTER TO PRATT ARCHITECTS

"SINCE OUR LAST Club dinner, which was indeed an outstanding success, nothing further was accomplished in the way of gastronomical pastiming, but the Board of Governors did actually meet and carry on.

"Committees were formed to cover our various activities. We might add right here that due to a Publicity Committee we are breaking forth in print so that we can report progress to our President, he being extremely inquisitive on matters of this kind.

"At the last Board meeting it was decided to stage a Smoker at the Pratt Club in Brooklyn, N. Y., and have as our guests the Graduating Class of Architects. We are divulging no secrets when we inform you that the vote to hold the Smoker was unanimous, even after considering the grave question involving the brand of the tobacco we should provide.

"So the Smoker happened, as before predicted, and, what a Smoker that was! There were about seventy-five smokers, not counting the guests and non-smokers. We believe we noticed several gas masks and consider the wearers used infallible judgment.

"The boys were provided with tobacco of a well known brand. (We personally refused a large piece of change when we declined to mention the name of the tobacco in this letter) Missouri-Meerschaums were many as were various grades of cigars and cigarettes. The cigars were purchased by one of the boys who does not smoke and they were good, we aver.

"Our speakers were: Mr. William H. Gompert, Architect for the Board of Education of the City of New York, Mr. William T. Bannister, Secretary, State Board of Registration of Architects, N. Y., and Mr. Franklin C. Edminster, Professor in Charge of the Architectural Department of Pratt Institute.

"Mr. Gompert explained in detail the workings of the 'greatest Architect's office in the world' while Mr. Bannister advised the Graduates on many interesting questions. Mr. Edminster, as usual, had cheerful and encouraging remarks to make. We cannot offer enough praise and thanks to our speakers and they will be prevailed upon to return and tell us more.

"Then followed a most surprising surprise. Our guests, the newly grads, informed us through their President (he can speak) that they had a modest program arranged for our entertainment. We will not mention the performers by name as we feel they will be lost to Architecture should Jolson or Hammerstein hear of this. We take this time to sincerely thank the Class of 1926 for their very fine offering, the applause from the older men (Classes 1925 and down) indicating how we appreciated the program.

"This was followed by Community Singing and food. Last but in no way least, the Smoker Committee must be congratulated for to them must be ascribed the success of the affair.

"Addenda I. Membership now totals seventy-five men and is growing slowly. You want us and we want you so fall in Grads and join. Advise Harlow C. Jones, Secretary, Pratt Architectural Club, 22 East 38 St., N. Y. City.

"Addenda II. If you eat on Tuesdays, drop over and have lunch with us. Every Tuesday at 12:30 P. M., Fraternity Clubs, 22 East 38 St., N. Y. City.

"Addenda III. Best wishes to all."

(Signed) BOARD OF GOVERNORS,  
PRATT ARCHITECTURAL COMMITTEE.





CLARENCE DALE BADGELEY

CLARENCE DALE BADGELEY, winner of the Prix de Rome for 1926, was born in Warren County, Ohio. He attended school in Springfield, Ohio, and took a four year course in architecture at Ohio State University where he received instruction from Professor St. John Chubb, Jr., and, later, practical experience in the office of Howard Dwight Smith. A scholarship brought him to Columbia University where he received the degree of B. Arch., in 1925. Experience in various New York offices supplemented his school training. In the field of design he owes much to the training received under Mr. Frederic C. Hiron, Mr. Harvey W. Corbett and Mr. Raymond M. Hood.

Mr. Badgeley is a member of The Architectural League of New York and, while in college, he was elected into Alpha Rho Chi Fraternity and two honorary fraternities: Tau Beta Pi and Tau Sigma Delta.

He will go to Rome to take up his studies at the end of the summer.

#### PRIX DE ROME IN ARCHITECTURE

THE FINAL CONTESTANTS in the competition for the Fellowship in Architecture, American Academy in Rome, selected from a large number of applicants as the result of a ten-day preliminary competition, were, C. D. Badgeley of Columbia, D. V. Freret of Cornell, H. F. Pfeiffer of Yale, P. F. Taylor of Princeton, Vincent Viscariello of Armour Institute, and J. W. Wood, Jr., of Harvard.

The problem on which these men worked in the final competition for four weeks was the designing of a Monumental Treatment for a Reservoir and Fountain Terminal to a Parkway Vista in a large city.

The members of the jury were: Wm. Mitchell Kendall, Chairman, Louis Ayres, Wm. Adams Delano, Charles A. Platt, and John Russell Pope.

The winner of the prize, Clarence Dale Badgeley, is appointed for three years beginning October first. The prize pays \$1,300 a year in cash, and is the equivalent of over \$2,000 a year, since the recipient is provided with residence and studio free at the Academy.

This year the award is the Wm. Rutherford Mead Fellowship, which was won three years ago by A. F. Deam of Columbia University.

Mr. Badgeley's drawings, and those of Mr. H. F. Pfeiffer which were placed second, are reproduced on pages 437 through 440 of this issue.

#### AMERICAN ACADEMY IN ROME

ON APRIL 2ND DIRECTOR and Mrs. Stevens left Rome for Athens on their way to the Archaeological Congress in Syria.

Mr. Mead has been in Rome for about ten days, coming to the Academy each day. Mr. Samuel Parrish, founder of the Parrish Museum Fellowship for Sculpture at the Academy, was in Rome at the same time and Mr. Mead had the pleasure of showing him the Academy and its adjacent properties.

Senator Phelan of California, one of the Academy's councilors, paid us a brief visit and purchased one of the works of Mr. Proctor.

One of the Guggenheim Fellowships has been awarded to Frank Schwarz, former Fellow in painting at the Academy. He has in view an extensive program of travel and technical study. In February he plans to reach Rome and retire to Anticoli Corrado to execute some tempera projects.

We have just received news of this year's collaborative award to the team composed of A. F. Deam, 3rd year architect, H. P. Camden, 2nd year sculptor, and M. J. Mueller, 1st year painter. The subject of the competition was a Monumental Staircase for a Navy Department.

A. F. Deam is finishing his required work, a series of drawings of the Campidoglio in anticipation of an early departure from the Academy. Norman T. Newton, landscape architect, and George Fraser, 1st year architect, have returned from a six weeks' tour of Spain. Fraser is beginning a reconstruction of a site at Hadrian's Villa.

Bradford's eyes are improving and he is progressing with his painting. Finley, 2nd year painter, is in Florence working on his required copy. The first year painter, Mueller, is beginning a new figure composition, with his original canvas almost completed.

The sculptors are all active. Meyer is carrying several things at once. His well-head is about completed. Camden and Hancock are both using models and progressing satisfactorily with their work.

#### SAN FRANCISCO ARCHITECTURAL CLUB

THE SAN FRANCISCO ARCHITECTURAL CLUB is now nearing the end of the season. With the good work of this season we have hopes to begin the fall term with a lot of pep and vigor.

A hearty welcome will be extended to any desiring to enter the Atelier for the Beaux-Arts season. Our Class A group is gradually growing. K. E. Ponsford was awarded a mention on his Class A Project.

The character of the club is attested to this year by the fact that two of its members have won distinction. R. J. Blas, our Sous Massier, just won a special student scholarship to Harvard and will leave this fall. Orin Bullock, having received last year's scholarship given by the Harvard Alumni of San Francisco, won his second for another term as a special student at Harvard. George Travis, also representing our club at Harvard, has received a similar scholarship in the past.

An interesting collection of pencil and water colored sketchings of old Mexico by H. A. Schary, a graduate of the University of California, were appreciated by all those who visited the exhibit at our quarters last month.

Through the generosity of Mr. Ralph Wyckoff, an old club member, the club has offered a prize of \$20.00 for the best cartoon representing Club Life. The jury will consist of the patrons of the atelier.

We are contemplating an Engineering Class to begin this fall with the hope of securing a large attendance.

J. H. DEVITT, Secretary



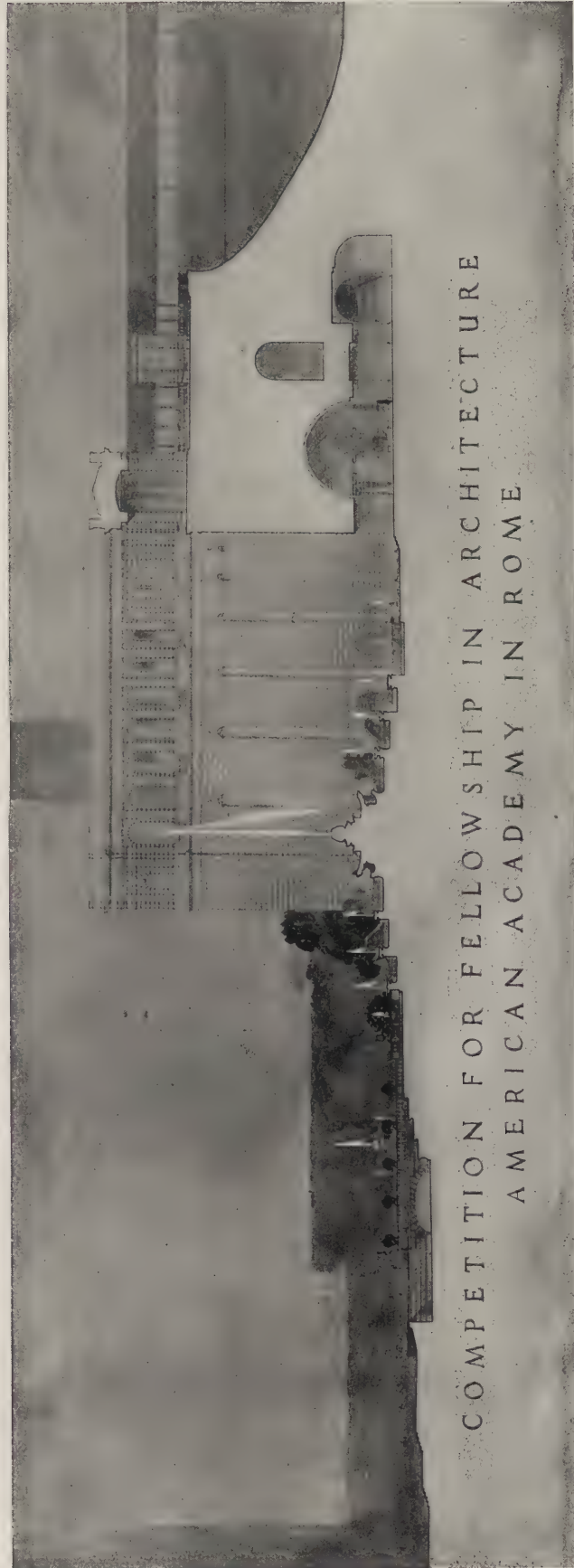


PLAN OF WINNING DESIGN BY CLARENCE DALE BADGELEY  
COMPETITION FOR FELLOWSHIP IN ARCHITECTURE FOR 1926, AMERICAN ACADEMY IN ROME





ELEVATION

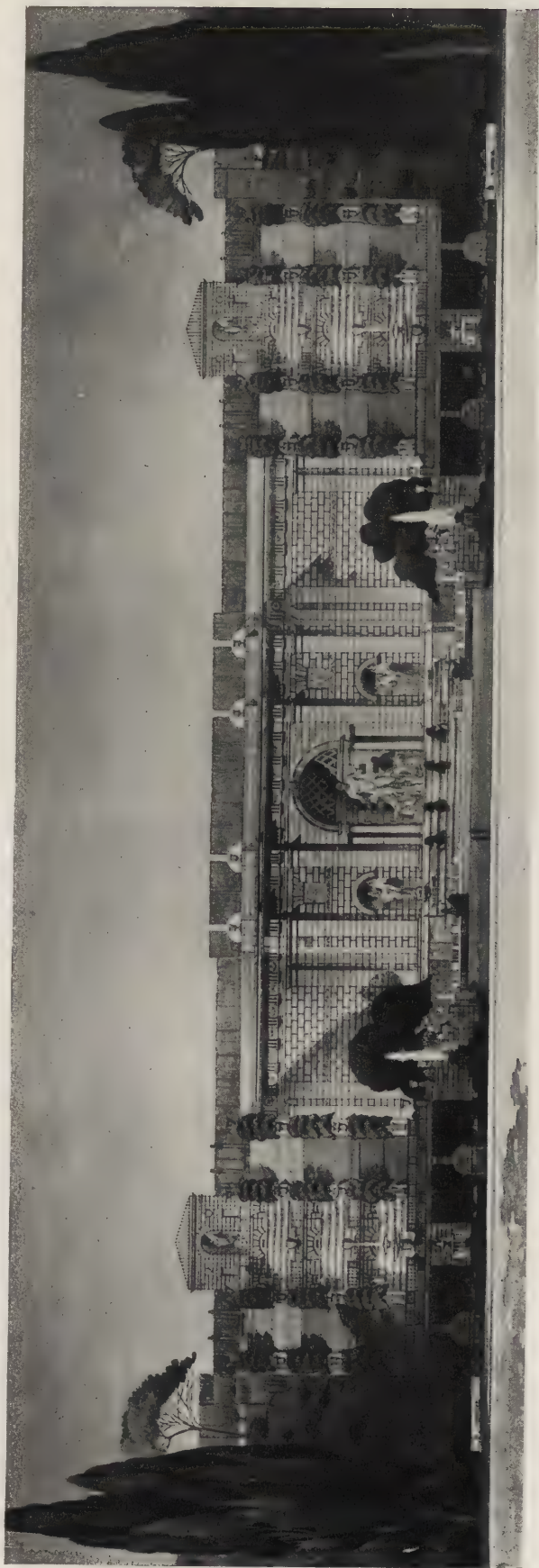


COMPETITION FOR FELLOWSHIP IN ARCHITECTURE  
AMERICAN ACADEMY IN ROME

SECTION

WINNING DESIGN BY C. D. BADGELEY, COMPETITION FOR FELLOWSHIP IN ARCHITECTURE, AMERICAN ACADEMY IN ROME





ELEVATION



SECTION

DESIGN PLACED SECOND, BY H. F. PFEIFFER, COMPETITION FOR FELLOWSHIP IN ARCHITECTURE, AMERICAN ACADEMY IN ROME





PLAN OF DESIGN PLACED SECOND, BY HOMER F. PFEIFFER  
COMPETITION FOR FELLOWSHIP IN ARCHITECTURE FOR 1926, AMERICAN ACADEMY IN ROME



THE NEW YORK ARCHITECTURAL CLUB, INC.  
118 EAST 42ND ST., N. Y. C.

WE DON'T KNOW exactly whether it's writer's cramps, draftsman's elbow, or just plain Spring fever that is the cause of it, but we must shamelessly admit that we could readily think of three hundred and eighty seven other things that we would do more willingly than this. We done our darndest to convince the powers that be, that balmy June weather is no time at all to nail a fellow down to invent mental torture. We went so far as to argue most eloquently that nobody gives a continental whether this appears or not, in fact would much prefer that it did not. However, when the most translucent piece of crystal, in the form of a tall slender glass, that we ever had the happy opportunity of glimpsing was brought before our vision, we began to feel weak. This particular piece of crystal was filled with "lemonade". The most luscious sort of lemonade of a warmish brownish color, all a-tinkle with pieces of ice, and, strange to say, a piece of orange, that somehow found its way into it, looking for all the world like some ill-fated ship in miniature form, wrecked among miniature icebergs. We reached out our hand in as hearty a welcome as we could have extended to any long lost friend, only to see it withdrawn, to the tune of the fiendish laugh of our tormentor, who offered it as a bribe, to break down our will. Well, much to our disgust, we gave in, and so here we are at work.

We will try to be as lenient as possible with our kind reader's patience, and make this as short as possible, mentioning just a few little points, regarding our club.

To begin with, the new quarters are not quite completed, due to some unforeseen labor difficulties, which have held up progress considerably, but these are now fairly well straightened out, and we look forward to the swift completion of the "job".

The Atelier however, was a very busy place, as a bunch of the boys were on their June Beaux-Arts problem, in an honest to goodness charette, some of the boys working for the last fifty hours almost without a break.

The results, however, were very gratifying indeed, both to the club and to the boys themselves. For instance, Cornelius C. Nissen, received 1st Mention, placed in Class B, Analytique, and N. Frank Bader, Jr., received 1st Mention also in the same class. The boys have been working under the very valuable criticism of Mr. A. D. Seymour, the Patron of this particular division, and it is very interesting to note that these were the first problems that either of these youngsters had ever turned in, in Beaux-Arts studies. We may be, therefore, tolerated to some extent for taking pride in the good beginning of our Atelier.

At this writing, arrangements are being completed to hold two sessions per week in drawing from life, and by the time that this number is issued, there is no question but that everything will be going strong.

Some of the boys are taking the Summer problem, so that things will be stirring even during the unbearable months. There still are several vacancies in both the Atelier and the life class, for the right sort of fellows, and those desiring admission can get in touch either with the writer, or with Mr. W. E. Herrick, the Massier of the Atelier at the Club Rooms.

HENRY SASCH, *Secretary*

**A FREE EMPLOYMENT SERVICE FOR READERS  
OF PENCIL POINTS**

(Other items on page 74 of the Advertising)

**Young man** wishes position in architect's office. Some experience in tracing. Good drawer. Start at the bottom. Box 320 care of Pencil Points.

**An Architect**, university graduate and member A.I.A., wishes a connection with an architect doing high class work, one who prefers designing and drafting. He will assume the estimating, construction, supervision, specification writing and interviewing clients. Box 329 care of Pencil Points.



RUSSELL M. KROB

RUSSELL M. KROB was recently awarded the McKim Traveling Fellowship of the School of Architecture, Columbia University. He was graduated from Ohio State University in 1923 with the degrees of B. Arch. and B. Arch. Eng. The following year he worked in the office of Howard Dwight Smith at Columbus, Ohio, coming to New York in the fall of 1924 to continue his studies in the School of Architecture at Columbia University. During his course there he worked a large part of the time in the office of Dennison and Hiron, Architects.

Mr. Krob received his B. Arch. degree from Columbia on June 1st. He plans to sail for Europe the latter part of August and will travel for at least a year studying and sketching the architecture of England, France, Italy, Spain, and Greece.

**PERSONALS**

THEODORE H. SKINNER, ARCHITECT, has opened a branch of his New York office at Dunedin, Florida.

MATTHEWS M. SIMPSON has opened an office for the practice of architecture at 400 Presbyterian Building, Nashville, Tenn.

LAWRENCE RAYMOND WHITE AND LOUIS W. SIMSON have opened an office for the practice of architecture in the First National Bank Bldg., Monterey, Calif.

JACOB JOHN SPOON, LANDSCAPE ARCHITECT, has opened an office at Two Cleveland Street, White Plains, New York.

ELLERBE & COMPANY, ARCHITECTS, 692 Endicott Bldg., St. Paul, Minn., have opened a branch office at Rochester, Minn.

WILLIAM GREGORY RAMMELL, formerly of Garriott & Rammell, Architects and Engineers, has opened an office for the practice of architecture at 208 Fourth St., Logansport, Indiana.

HARRY KIRSHBAUM, ARCHITECT, has removed his offices to the Candler Building, 220 West 42nd St., New York.

BENJ. FRANKLIN OLSON, ARCHITECT, has removed his offices to 19 So. La Salle St., Chicago, Ill.

HERMAN M. SOHN, ARCHITECT, has removed his offices to The Farmers Loan and Trust Company Building, New York City.





THE ORGANIZATION OF CROSS & CROSS, ARCHITECTS, NEW YORK.

1. Frederick Kayser; 2. George J. Magnolo; 3. Henry J. Herrell; 4. Nicholas R. Zummo; 5. Lawrence K. Morrissey; 6. James A. Harris; 7. W. W. Ellison;
8. W. W. Baggesen; 9. Rosamond Wolcott; 10. Emily P. Stickney; 11. C. E. Fest; 12. Norman D. Taylor; 13. Alexander H. Anderson; 14. George W. Adams;
15. Henry Rausch; 16. James F. Hayes; 17. Florence M. Moray; 18. Joseph W. Davis, Jr.; 19. Dorothy Fox; 20. Alfred C. Dahmas; 21. A. W. Sheffield; 22. William I. Bell; 23. Rhys H. North; 24. Paul K. Fisher; 25. Thomas Bell; 26. M. Beeman Stout; 27. Charles A. Forsbauer; 28. Russell A. Beale; 29. John W. Ingle, Jr.;
30. David A. Clous; 31. Henry W. Bossert; 32. Marion Walsh; 33. Blanche V. Maroldy; 34. Arvid Hallstrom; 35. William Phillip.



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

YES, WE ARE JUST as anxious (perhaps a little more so) to publish the sketches and other material submitted by those who have never before had any of their work reproduced as to show the work of those better known. It has been our pleasure during the past six years to bring many newcomers to the notice of our large family of readers and many of these men and women are now occupying responsible positions in good offices throughout the country. We do not mean by this that we are willing to publish work lacking merit, but those comparatively unknown are just as welcome here as those with reputations. So you novices need have no hesitation in contributing to this department, nor need you feel that your efforts will in any sense be discriminated against when the various items are selected for reproduction each month.

The winners of the prizes for June are:

- Class one, E. M. Schiwetz
- Class two, Myrtle Dyke
- Class three, Adam M. Petrie
- Class four, Jeannette C. Shirk

Howard D. Clary has sent us a copy of his poem, awarded the prize in Class Two of the May competition, which we have printed on the next page.

We should like to have letters from our readers expressing some opinion of the Piranesi plate published at full size in our June issue. This is Plate XXXVI of the Campus Martius series by G. B. Piranesi. We are now considering the advisability of publishing some of these plates in book form as well as running them occasionally in PENCIL POINTS. So please let us know how you like the work of this master.

We had a letter a while ago from one of our readers complaining that PENCIL POINTS is "too good" for the average draftsman and for the average drafting-room. This gave us quite a shock. It has been our feeling that there should be no place in our editorial program for the commonplace, the mediocre; that we should constantly strive to improve our own standards, thereby being of the greatest help and inspiration to those endeavoring to broaden their own knowledge, improve their technique and to learn by the examples of those who are regarded as leaders in their various chosen branches. Now if there is one thing we are anxious to do around here it is to give to our readers that which they most need in a journal for the drafting-room. Are we too highbrow and if so in what particular? Are we neglecting anything which you would like to see included in the paper, and if so what? We are always open for suggestions, we are not sensitive to criticism and regard those who make constructive suggestions as the best friends we have.



SKETCH BY E. M. SCHIWETZ  
(PRIZE—Class One—June Competition)



SKETCH BY J. A. FERNANDEZ  
*Rue des Prêtres, Albi*



## PENCIL POINTS

### THE SONG OF THE CATALOGUE

(PRIZE—Class Two—May Competition)

When a catalogue comes in the mail  
We try and file it. Yeah. Try and file it.  
And when I want to use the dope  
I try and find it. Yeah. Try and find it.

This is the song of the catalogue,  
The big "Horse-Blanket" catalogue,  
With seven headlines and fourteen cuts  
And no information. They sure got guts  
When the file's only eight by eleven.  
The medium-sized swellish-like catalogue  
That tries to put on a lot of dog,  
With pictures of seventeen buildings up,  
And not a spec in the outfit. Nup,  
They don't give no details neither.  
The little memo size info book  
For your vest pocket. They done took  
And sent sixty-eight of 'em up to date.  
I just got twelve pockets, I'm no heavyweight,  
And I ain't got no brief case neither.  
If they're anxious to have us use their dope,  
They ought to make them the right size, but nope,  
They put in the pictures, they put in the salve,  
They leave out the dope that we ought to have,  
And expect us to put in their product.  
When a catalogue comes in the mail,  
We try and file it. Yeah. Try and file it.  
And when I want to use the dope,  
I try and find it. Yeah. Try and find it.

*Paperweight.*

### DESIGN VERSUS COST.

I designed me a residence once on a time,  
A study in stonework and brickwork and lime,  
A Senior-Euclidean, Junior Numidian, almost an impurely  
Phidian Pile,  
In an early Illyrian, later Sumerian, modernized Modern  
Assyrian style.

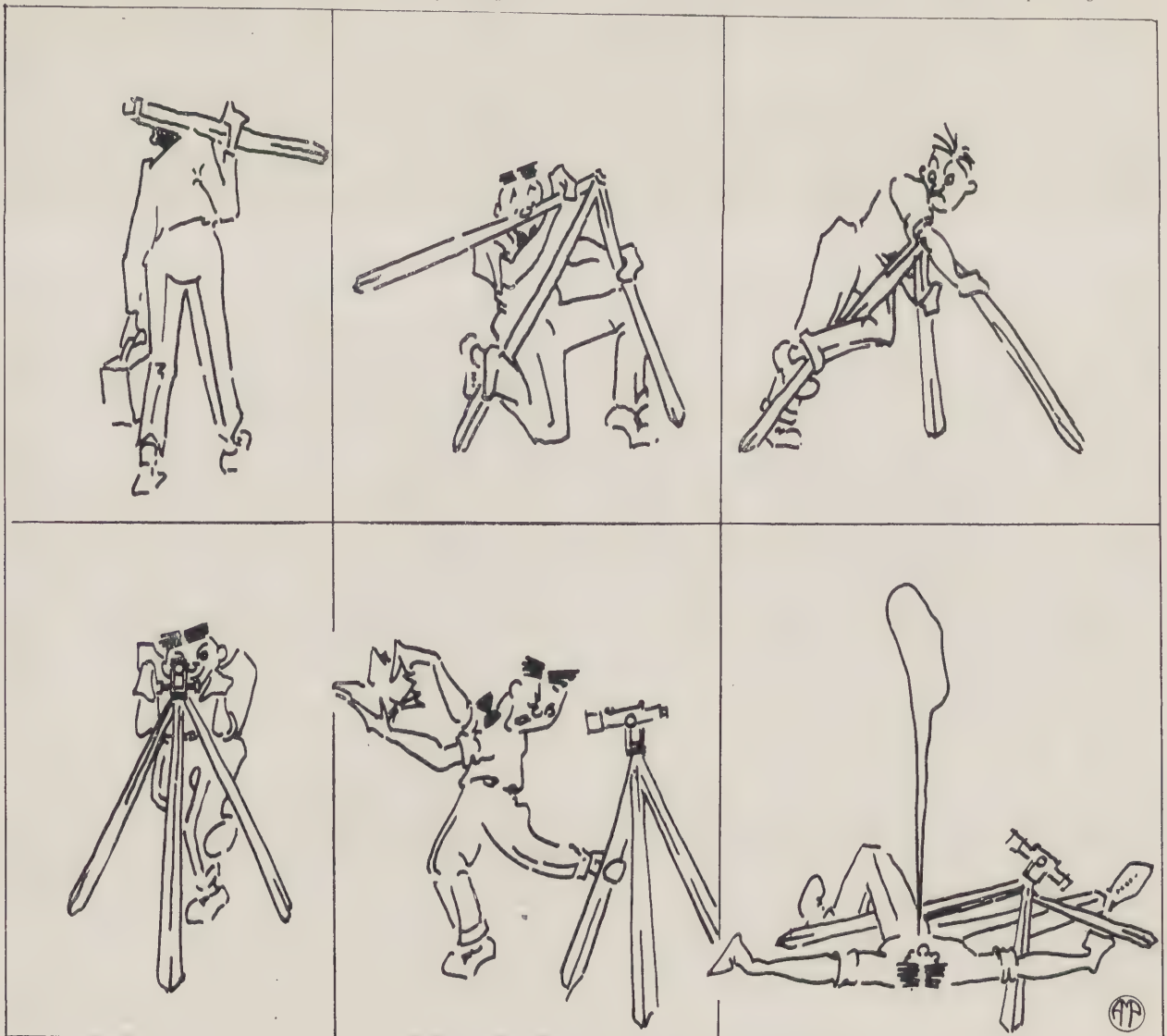
I lettered and cleaned it and put on some crayon,  
And laid it away for its owner next day,  
A Super-superior-swellish-exterior, pretty-interior Builder  
they say,  
With a poorly-directive, flimsy-erective, hard-to collective  
sort of a way.

He looked at the plan and he looked at the front,  
And he said, with a sneer and a snort and a grunt,  
THA'S TOO DAMN EXPENSIVE:  
CUT OUT THE GINGERBREAD:  
TAKE OFF SOME OF THAT ROCK:  
THAT TERRACE IS TOO HIGH:  
I CAN'T AFFORD ANY IRONWORK:  
ETC., ETC., ETC., ETC., ETC., ETC., ETC.

A delightful experience, just to let go,  
And put on the trim without counting the dough,  
A greatly intriguing, not so fatigueing, absorbing, inveig-  
ling task, as you know.

With an almost didactical, half fermillactical, wholly im-  
practical product to show.

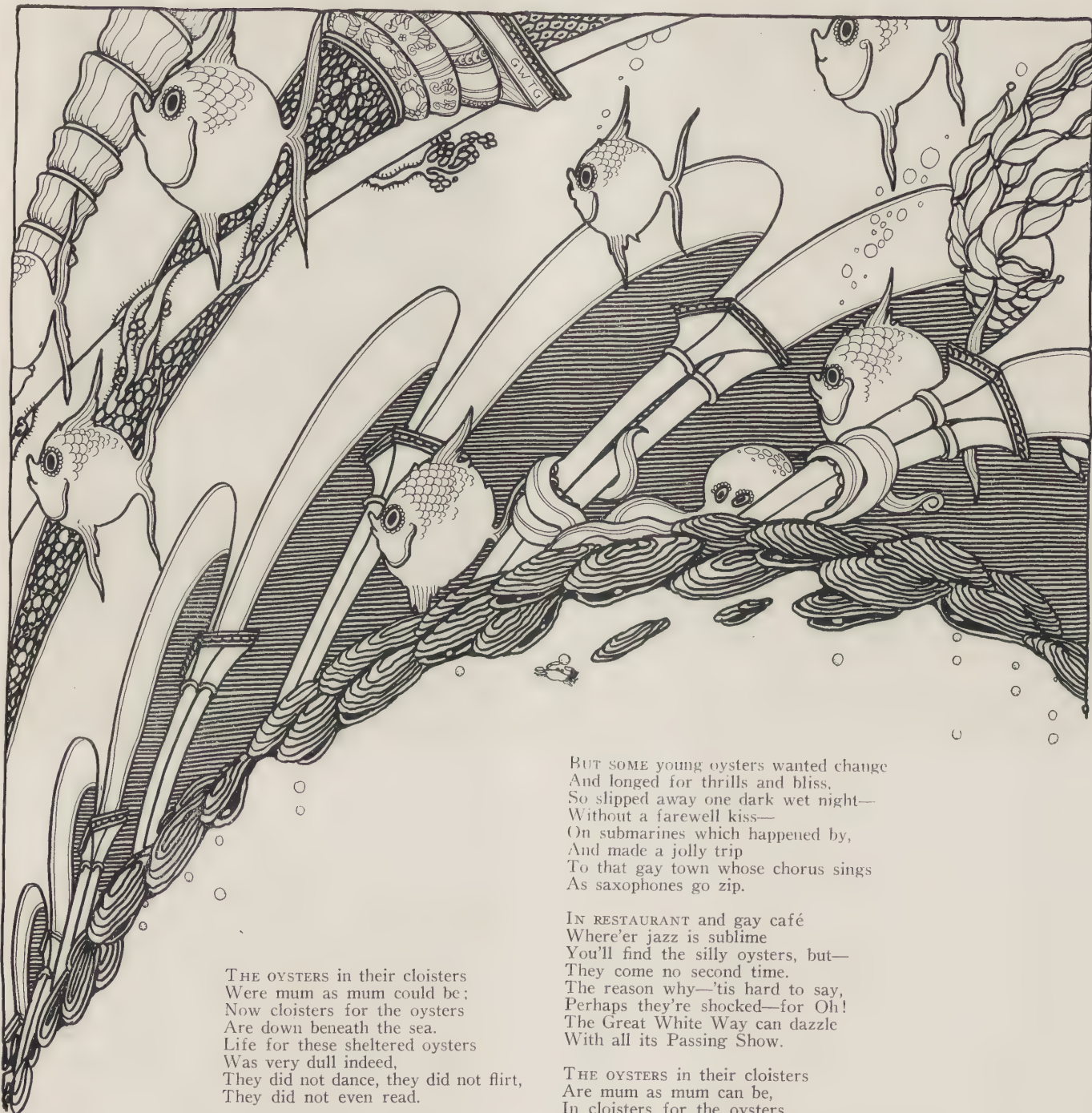
*The Paperweight.*



"SETH THE LEVELLER," BY ADAM M. PETRIE, FORFARSHIRE, SCOTLAND

(PRIZE—Class Three—June Competition)





THE OYSTERS in their cloisters  
Were mum as mum could be;  
Now cloisters for the oysters  
Are down beneath the sea.  
Life for these sheltered oysters  
Was very dull indeed,  
They did not dance, they did not flirt,  
They did not even read.

WITH CUTTLE fish and octopi  
Contented each to dwell,  
All snuggled up within the walls  
Of his secluded cell.  
As old men have their rheumatiz  
To fill the passing day,  
Old oysters have their pesky pearls  
Forever in the way.

BUT SOME young oysters wanted change  
And longed for thrills and bliss,  
So slipped away one dark wet night—  
Without a farewell kiss—  
On submarines which happened by,  
And made a jolly trip  
To that gay town whose chorus sings  
As saxophones go zip.

IN RESTAURANT and gay café  
Where'er jazz is sublime  
You'll find the silly oysters, but—  
They come no second time.  
The reason why—'tis hard to say,  
Perhaps they're shocked—for Oh!  
The Great White Way can dazzle  
With all its Passing Show.

THE OYSTERS in their cloisters  
Are mum as mum can be,  
In cloisters for the oysters  
Down underneath the sea.  
But they are safe from Worcestershire  
Or being served up hot,  
So let us hope they realize  
How blessed is their lot.

*Myrtle Parke Dyke*

(PRIZE—Class Two—June Competition)







RALPH



MARY

#### THESE CHILDREN WANT HOMES

Ralph is ten years old, born of American parents and a half orphan. His coloring is blond with blue eyes. Excellent physical condition and a pleasing, amiable, bright boy. He stands well in school and is popular with other children.

Mary is eleven years old, half orphan, American ancestry. Dark brown eyes and brown hair. She is strong and well, has a vivid imagination and stands well in school.

Anyone interested in considering these children for adoption can secure complete information by addressing Sophie Van S. Theis, State Charities Aid Association, 22nd Street and Fourth Avenue, New York.

Pencil Pointer Truman R. Hart of Astabula, Ohio, sends in this odd bit:

An eccentric old man had a piece of land on which he decided to erect an odd shaped building. His hobby was to use odd numbers in all things, and he considered thirteen to be his luckiest number; so he requested his architect to draw plans for the building, stating at the time, that he wanted only thirteen piers used, and these must be placed three in a row, but there must be twenty-one rows. Odd as the order was, the architect drew the plans to the entire satisfaction of his client. Try sketching an outline of the building, showing the location of each of the thirteen piers.



BY JEANNETTE C. SHIRK, GLENSHAW, PA.  
(PRIZE—Class Four—June Competition)

#### COPIES OF PENCIL POINTS

WANTED AND FOR SALE

J. W. Buchanan, 104 Altmere Avenue, East Ham, E. 6, London, England, wants March, 1926.

George F. Schreiber, Architect, 914 Merchants Bank Bldg., Indianapolis, Indiana, wants copies of May to December, 1921, inclusive.

Miss Thelma Silcock, The Cross, Huyton, Lancashire, England, wants January to April, 1921, inclusive.

L. J. T. Decary, 268 West 44th Street, New York City wants March, 1922.

Paul Whitney Rhoades, 123 North Avenue, Washington, Pa., wants October, 1925.

Schmidt, Garden & Erikson, 104 South Michigan Avenue, Chicago, Illinois, want January, February, November, 1921, and June, 1922.

The Library of the Department of Architecture, The Clemson Agricultural College, Clemson College, S. C., burned and the department wishes to secure all back copies of PENCIL POINTS, particularly the special numbers.

A. Lawrence Kocher, 357 East Prospect Avenue, State College, Pa., wants January and March, 1921.

B. C. Holland, P. O. Box 186, Dublin, Georgia, will sell the following copies of PENCIL POINTS, (all in good condition), at twenty-five cents a copy: 1923—April, June, July, August; 1924—January, February, March, April, May, June, September, October, November, December; 1925—January, February, March, April.

A draftsman's equipment is just 'bout the same  
As it was long before King Solomon's reign  
Compasses, dividers, scales and pens,  
Triangles and T-squares 'most like they had then  
Some changes have come with slight variation  
But the new to the old, still bears close relation  
The Classical Temples and Gothic so fine  
Were probably built from a ruling pen's line  
And plans for sky-scrapers so high in the air  
Are still being drawn with triangle and square  
It's hard to conceive of a possible change  
As these old tools of ours, have such a flexible range.  
But some genius head with our blessings we'll anoint  
Who invents a sharp pencil with unbreakable point  
And he too will be hailed with immortal men  
Who creates a self sharpening and self cleaning pen.  
Rudolph L. Wilson



# PENCIL POINTS



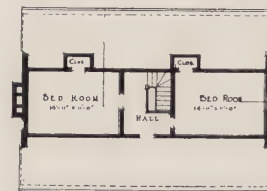
Pencil Rendering by Ely Jacques Kahn



First Floor Plan



Second Floor Plan

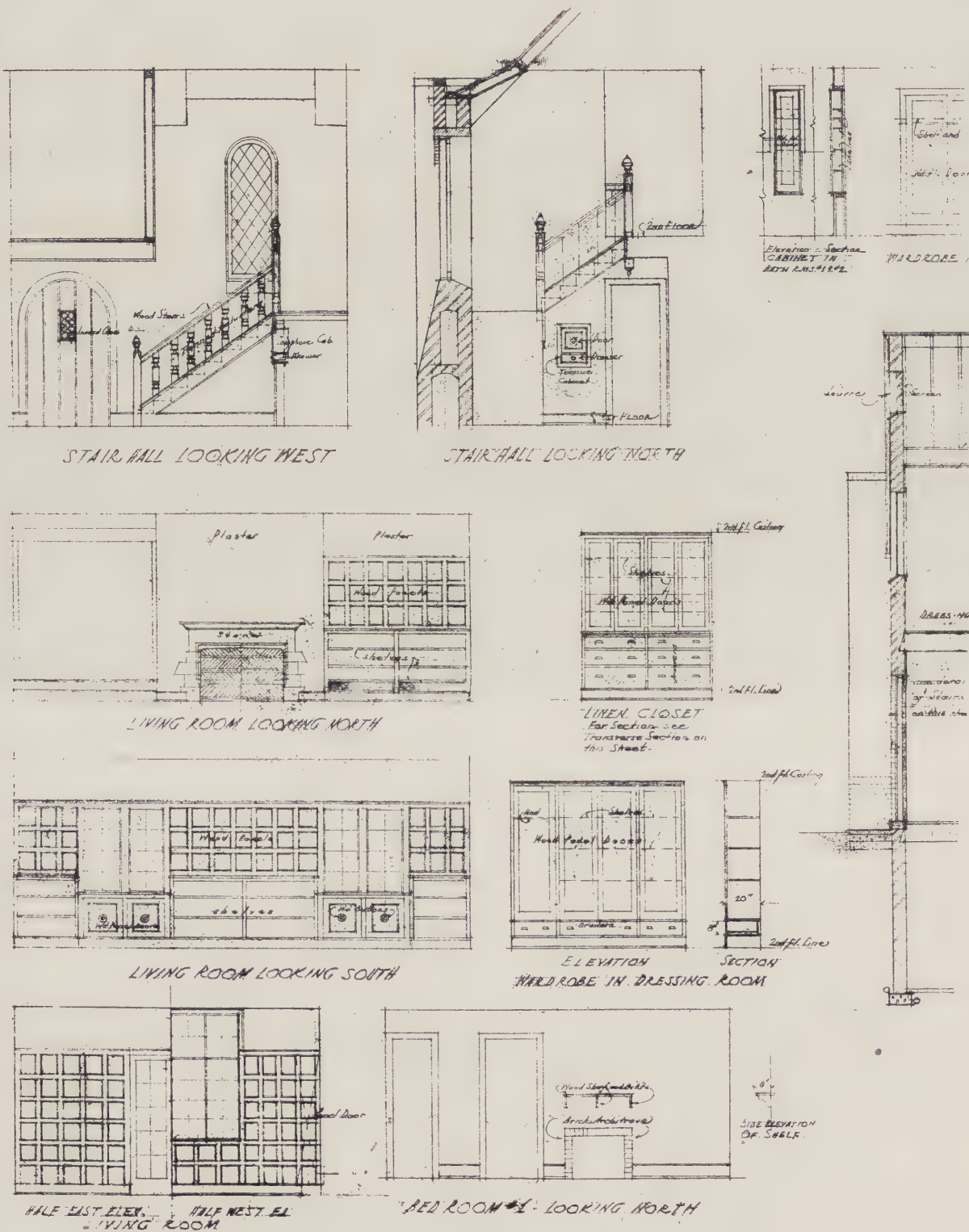


Third Floor Plan

HOUSE FOR A. E. WHEELER BUILDING CORPORATION,  
JULIUS GREGORY, Architect



# PENCIL POINTS



DETAILS OF CONSTRUCTION FOR SMALL HOUSE

DISE AND DITCHY, Architects



# THE SPECIFICATION DESK

A Department for the Specification Writer

## SPECIFICATIONS

By W. W. BEACH

### PLUMBING AND DRAINAGE, PART XX. (Continued)

#### MATERIALS

##### ARTICLE 6. *Piping in building.*

(A) ALL CAST IRON PIPE shall be of close-grained, tar-coated, grey iron of uniform thickness, sound, cylindrical, free from defects, and with Maker's name plainly cast on each piece. It shall be of approved standard make and shall weigh, per lineal foot, not less than the following (fittings in proportion):

3" pipe,	9½ lbs.
4" "	13 lbs.
5" "	17 lbs.
6" "	20 lbs.
8" "	33½ lbs.

(B) ALL WROUGHT IRON PIPE for water and gas supply and stand-pipes shall be genuine wrought, lap-welded pipe of standard weight and approved make, heavily galvanized for water, and black iron for gas. Fittings shall be galvanized malleable iron, flat-band for gas and cast-iron steam pattern for water.

(C) LEAD PIPE shall be 8 lb., commercially known as "D" weight; shall be best quality and of approved make.

(D) COPPER PIPE shall be semi-annealed, seamless drawn tubing, iron-pipe sizes, of approved make and containing not less than 70 per cent. copper alloyed with zinc and tin. Fittings shall be cast, of same proportion copper and alloy, and of extra-heavy, cast-iron steam pattern.

(E) ALL VALVES, except those directly at fixtures, shall be all brass, of approved type and Make. All shall be full-way, gate or check, built to withstand steam pressure of 125 lbs.

(F) HANGERS shall be cast iron, of approved make and proper size and length for each location. Gang hangers may be used where practicable. Wrought iron pipe clamps, of proper size, shall be used to support vertical runs.

(G) SLEEVES or thimbles shall be provided, of proper diameter and length, where pipes pass through floors, walls and partitions; all to be of No. 20 gage galvanized iron, except in exposed places where they shall be of wrought iron pipe, smoothly finished.

(H) LEAD AND PICKED OAKUM for calking shall each be of best grade, suitable for the purpose.

(I) SHEET LEAD for flashing shall be best grade, weighing 4 lbs. per sq. ft. That under showers shall weigh 6 lbs. per sq. ft.

##### ARTICLE 7. *Plumbing and Water-supply Fixtures.*

(A) HOT WATER HEATER shall be a 2-grate cast iron sectional heater, similar to No. 2 made by — Co., suitable for burning any kind of coal, wood or rubbish.

(B) HOT WATER TANK shall be an extra-heavy galvanized range boiler, 2'6" in diameter and 10'0" long, tested to 125 lbs. pressure. It shall be fitted with concave riveted ends manhole and all necessary 1½" tapping for hot and cold water connections; also steel hangers to suspend from boiler room ceiling.

(C) WATER CLOSETS throughout shall be — No. — vitreous-china, extended-lip, syphon-jet with side inlet, fitted with — flush valve with stop, open-front, birch-mahogany seat, all complete, with cast brass floor flange.

(D) URINALS shall be — No. —, 18", with automatic flush tanks with control-cocks, otherwise complete as shown.

(E) LAVATORIES shall be — No. —, all 18" x 21" enameled outside and fitted with — self-closing bibbs, supplies, wastes and vents, all as shown, except that lavatories in gangs may have continuous wastes with single vents.

(F) SLOP-SINKS shall be — No. —, 20" x 22", complete as shown, with hot and cold water supplies through compression faucets; hose threads on cold water faucets. Sinks

in laboratory tables shall be — No. —, with No. — traps and with hot and cold water supplies through pantry basin cocks No. —, arranged to turn down and be concealed under table lids; and provided with drum traps and wastes.

(G) SINKS in kitchen and domestic science room shall be — No. —, 22" x 36", complete as shown, except that each shall be provided with a No. — grease trap located on floor as directed. Sinks in dark-room and in laboratories (except in demonstration tables) shall be — No. —, complete as shown, except that cold water supplies shall be through compression hose-bibbs.

(H) DRINKING FOUNTAINS shall be — No. —, complete as shown, except that each shall have a No. — self-closing bubbling valve. Each shall be 36" high.

(I) DENTAL LAVATORY shall be — No. —, complete as shown.

(J) SHOWERS shall be — No. — shower-heads, with ½" galvanized supplies controlled by regulating valves, complete as shown. Lead pans shall be provided in floor construction under all shower stalls above basement.

(K) FLOOR-DRAINS shall be — No. —, set over 3" ½-S traps. Drain under refrigerator shall be — No. —.

(L) SILL COCKS shall be — No. —, with loose keys, which shall be delivered to the Superintendent.

(M) HOSE-REEL CABINETS shall be — No. —, complete as shown, each fitted with 100' of 1½" unlined linen hose, brass valve on stand-pipe connection, brass nozzle, heavy fire axe and — No. — fire extinguisher.

#### WORKMANSHIP

##### ARTICLE 8. *Trenches.*

(A) EXCAVATING shall be made to carefully follow lines shown on drawings, with bottoms of all trenches and man-hole pits carried to exact depths required, so that all pipes etc. shall lie on natural earth beds.

(B) BACK-FILL shall be carefully done in layers, thoroughly tamped or flooded as directed. Special care shall be used in making solid-refill over all work under concrete floors and walks. Just before acceptance of contract, all trenches shall be refilled as directed and left neatly mounded to satisfaction of Superintendent.

(C) CUTTING OF PAVING, where necessary for this work, may only be done by special permit of the Street Department. Such cutting and all repairs to paving on account of these and other damages due to work under this contract are included in the contract and shall be done as directed by said Department and subject to the approval of the Official in charge.

##### ARTICLE 9. *Outside Sewers.*

(A) MANHOLES shall be of required diameter and depth, with 13" walls of common brick in 1:3 cement mortar, with full ½" shovled joints. Walls shall start on 2-course footings, 17" wide, and shall be carried up true and straight 6'0" above floor, then evenly domed to a 24" diameter neck, which shall be extended up to street level with 8" brick walls, over which shall be built into the paving the cast iron manhole frames with 20" covers as specified. Floors of manholes shall be of brick on edge, laid in mortar as specified for walls; or floors may be of 1:2½:5 concrete, 4" thick, if approved by the Superintendent. Over the brick or concrete floor slab shall be laid ¾" of 1:2 cement mortar, smoothly troweled. Walls shall be carefully plastered inside with ¼" of same material. Inlet and outlet pipes shall be carefully built in with cement mortar at proper heights. Ladders shall be built into the walls as shown and shall consist of ¾" round rungs, 14" o. c., riveted into ¾" x 1½" stiles, 15" o. c., with ends turned and se-



## PENCIL POINTS

curely anchored into floor and walls. Ladders and cast iron work shall be thoroughly coated with asphaltum paint.

(B) TILE DRAINS shall be of size and locations shown and shall be laid with even and proper fall and with full 1:1 Portland cement joints, each joint finished smooth inside and out before next tile is laid. All changes of direction shall be with 45° ells. Both the storm-water and sanitary lines shall extend from outlet of cast iron sewer outside of basement wall to manhole as above specified and thence to connect into City sewers at street manholes. These latter connections shall be made as directed by the City Sewer Inspector and subject to his approval.

### ARTICLE 10. Cast Iron Piping.

(A) SOIL, WASTE, DRAIN PIPES ETC. Wastes, properly connected with sewer, shall be provided for all fixtures. All soil pipe shall be laid with even and proper fall and all that above basement floor shall be rigidly supported on hangers spaced about 5'0" o. c. Pipe vents through roof and all other soil pipes, unless otherwise marked, shall be 4"; waste pipes 2". Main sewer shall extend under basement floor as shown and to point about 3'0" outside of wall of building and there connect into tile sewer above specified, with tight cement joint. All joints in cast iron pipe shall be made tight with oakum and melted lead, tamped down hard and filled flush. Pipe vents shall extend at least 2'0" above roof and be flashed with 4 lb. sheet lead 30" square, laid flat on roof between plies of roofing and guaranteed water-tight. Cleanouts shall be inserted where shown and at feet of stacks and in other necessary places, with Y-branches and brass screw-caps easily accessible. All cleanout caps in floors shall be flush with same, in perfect plane, and shall be full size of pipe, except that pipes larger than 4" may have 4" cleanouts.

(B) ROOF DRAINS shall be of cast iron pipe, same as in preceding paragraph, provided with cleanouts in same manner. Drains shall extend to leaders from roof connections (provided and installed by Roofer) which leaders shall be properly connected into drain pipe hubs by Plumber. Drains shall be brought together under basement floor as shown and extended thence to point outside of wall and there connected into tile drain as above provided for sanitary line. (If required by local ordinance, both sanitary and storm-water lines shall be equipped with extra-heavy cast iron running-trap and cleanout, with fresh-air intake, extended above grade and fitted with approved cast iron cowl. These traps shall be installed just outside building wall and the outlets from same calked into bells of tile drain as above provided. If found necessary, approved back-water traps and shut-off valves shall also be installed in these sewer lines in location and manner directed, neither the running traps, back-water traps nor shut-off valves are included in the contract, but either or all will be made subject of an extra-order if so determined by the Architect.)

(E) VENT PIPES AND TRAPS. Vent pipes for the back-venting of all traps of all fixtures shall be taken from standing pipes at least 30" above highest fixture on that line. Each trap shall (unless otherwise specified) be back-vented with vent-pipe of same size as trap which it vents. Vent pipes from traps to stacks shall be run with as much upward incline as possible and, in no case, to run level or to slope in the wrong direction. Each fixture, unless otherwise specified, shall have lead waste and trap, with trap-screw placed where convenient for cleaning. All traps shall be perfectly smooth.

### ARTICLE 11. Hot and Cold Water Supplies.

(A) STREET CONNECTION shall be made with City water main in front of building where indicated, same to be a 2" tap, from which there shall be run a 2" extension, of material purchased from the City Water Department and installed under direction of its Representative, to meter located as shown in meter closet in basement.

(B) METER, provided free of charge by the City Water Department, shall be installed by this Contractor in meter closet. Main on each side of meter shall be provided with 2" shut-off valve and right-and-left couplings so that meter can be readily disconnected and removed. These couplings shall be located a sufficient distance from meter to permit installation of by-pass around meter. By-pass shall be provided with a 2" valve with seal to be obtained from the City Water Inspector and installed under his direction. Shut-off valve on house side of meter shall have waste, controlled by pet-cock, for draining the entire system and to which all piping shall be sloped, unless otherwise provided. Meter and all piping outside of this pet-cock which cannot be drained shall be thoroughly frost-proofed.

(B) STAND-PIPES. A 2" stand-pipe supply shall be taken off of main supply back of outer control valve of meter and shall be provided with a 2" valve with seal, same as specified in preceding paragraph. From this there shall be run, exposed under basement ceiling a 2" main supply, from which shall be taken off a 1½" branch for each stand-pipe, which shall be located as shown and fitted with 1½" outlets in each story (including attic) for hose connections. One stand-pipe shall be extended through roof and hose and reel for same located near roof-scuttle, convenient for attachment. Valves controlling attic and roof outlets shall be located in third story and shall be provided with drips with pet-cocks for emptying pipes above valves. All valves shall be conveniently located in positions approved by the Fire Chief. Cabinets for hose and fire equipment shall also be installed under his supervision.

(C) COLD WATER PIPING. A 2" main shall be extended, from shut-off at meter, to basement ceiling and thereon to convenient point, from which there shall be taken off a 1½" branch riser to each toilet room tier and to each basement bath room; 1½" branch to hot water tank; 1" branch to boiler room, kitchen, domestic science room and to each toilet room group; ¾" extension to each sill-cock and slop-sink hose-bibb and ½" supply to each other fixture. Branch to boiler room shall be properly valved and capped, ready for steam-fitter to extend to boilers. Supply pipes to drinking fountains shall be kept well away from hot water and steam pipes. No water or waste pipes may be exposed to freezing conditions, but shall be well insulated wherever any danger of frost would otherwise exist. Supply pipes on basement ceiling shall be neatly arranged in straight lines and shall be strongly secured in such manner as to be perfectly rigid. Adequate precautions shall be taken to guarantee the entire installation against water-hammer and the work will not be accepted until demonstrated noiseless in this respect. All piping shall slope and drain to drainage cocks. If any piping is too low to drain to pet-cock at meter, an additional pet-cock shall be located at low point, over a floor-drain, to complete the drainage. No piping shall be permitted to trap.

(D) HOT WATER SYSTEM. Hot water storage tank shall be rigidly suspended from ceiling of boiler room as shown and properly interconnected with the tank heater which shall be installed on boiler room floor and fitted with smoke breeching of 6" black-iron pipe, with cleanout and shut-off damper, and connection into boiler breeching or flue. All hot and cold water connections shall be 1½" and shall be valved and equipped with by-pass, so that tank and heater can be disconnected and removed without interrupting the service. A 1½" hot water supply main shall be extended from tank, on basement ceiling, with 1" branch to each basement bath room and to each toilet room tier; ¾" branch to kitchen, domestic science room and to each toilet room group; and ½" supply to each fixture for which hot water is intended. Each hot water riser shall have a ½" return pipe from highest point to insure circulation. These shall unite into a ¾" return main on basement ceiling and extend thence to tank supply. In all other respects the hot water system shall be installed in same manner as provided for cold water in preceding paragraph.

(E) VALVES shall be provided in all locations shown and specified. In addition to control valves above called for, each sill-cock branch and each riser shall be provided with check-and-waste valves located conveniently, near floor-drains in basement. Each valve shall have a 1¼" diameter brass tag attached by brass chain, on which tag the function of valve shall be plainly stated, in deep-stamped letters filled with black enamel. Separate control cock shall be provided for each fixture supply, whether called for in plate description or not. These need not be tagged. All valves and cocks on N. P. lines shall be N. P.

### ARTICLE 12. Fixtures.

(A) IN GENERAL. Each fixture shall be installed in best manner and in location exactly as shown. Plumbing Contractor shall give the General Contractor definite information for the placement of all grounds, etc., to which fixtures are to be connected and shall inspect same before they are covered and report to the Superintendent all that are not in proper condition to afford adequate support for this equipment, as this Contractor will be held solely responsible for all such supporting members. All fixtures shall be rigidly fixed in place, on standards, brackets or their own bases, as case may be, and shall have all necessary supply, vent and waste connections, as provided by Maker or otherwise.



## PENCIL POINTS

(B) WATER CLOSETS shall be installed as shown in each toilet room. Closets and tanks in gangs shall be perfectly aligned, and have proper cold water supplies. Marble Contractor will install marble template under each closet, placed and drilled as directed by Plumber.

(C) URINALS shall be set before toilet room floors are laid, so that same can be properly finished around urinal bases. Each gang shall have single tank, with cold water supply and control valve for regulating discharge. No marble work in connection with urinals is included in Plumbing.

(D) LAVATORIES shall be set at standard height and shall have hot and cold water supplies and wastes through vented traps. Dental lavatory shall have cold water supply only.

(E) SINKS shall be set at standard height and shall have hot and cold water supplies and wastes through vented traps or special grease traps, as case may be. Slop sinks shall rest on floor or be supported in laboratory tables, as case may be. The latter shall have anti-syphon traps, but all others shall waste through vented traps.

(F) ALL OTHER FIXTURES of every description shall be installed as called for, either in standard manner or as directed by the Superintendent, at no greater expense than that of best standard practice. Lead pans under shower stalls shall be placed in accordance with details, with edges turned up all round and outlet flashed into flange of floor-drain, all to be in perfect condition to absolutely guarantee against seepage appearing in ceiling underneath. Pans will be built into terrazzo by another Contractor.

### ARTICLE 13. Gas Piping.

(A) IN GENERAL. The local Gas Company will bring its supply into the building and connect same with meter, which they will also provide, in meter closet, fitted with control cock and threaded connection, ready for house main. This main will be  $1\frac{1}{2}$ " and shall be extended on basement ceiling and a  $1\frac{1}{4}$ " branch run thence to domestic science room, where plug shall be left in convenient location, where directed, for extensions to gas stoves. A similar  $1\frac{1}{4}$ " branch shall be run to kitchen and plugged for later extensions to stoves and cookers. Extensions shall also be made to each emergency gas bracket. These shall be  $\frac{3}{8}$ " pipe for single outlets;  $\frac{1}{2}$ " pipe for two to four outlets and  $\frac{3}{4}$ " pipe serving five or more outlets. All gas piping shall be installed in strict accordance with printed rules of the Gas Company and subject to its inspection and approval before lathing is begun. This Contractor shall pay for the removal and replacement of all lathing and plastering which he permits to be placed, without protest to the Superintendent, over gas piping not approved.

(B) EMERGENCY OUTLETS shall be located as indicated, at height directed and shall each be fitted with a 4" horizontal nipple, brass cock, pillar and approved tip and shade-holder. Each shall be in good condition when accepted, with good flame and free from leakage.

### ARTICLE 14. Protection, Cleaning and Guaranty.

(A) PROTECTION AND CLEANING. In addition to the adequate protection of his own and adjoining work as specified in the General Conditions, this Contractor shall keep all pipe and sewer openings plugged (when not in work) and shall so protect all fixtures that they will neither be used or otherwise injured before acceptance. Special care shall be used in protecting floor-drains and other drainage outlets. All fixtures shall be carefully cleaned before being offered for acceptance. None will be accepted that show the slightest defects, whether from usage or other cause, or that are not in perfect working order.

(B) GUARANTY. This Contractor, in undertaking the work of this contract, hereby guarantees all portions of same and pledges himself to make good, as part of his contract cost, any and all defects which may appear in said work within one year after its final acceptance, which defects may be, in the judgment of the Architect, due to the use of improper material or workmanship.

### ARTICLE 15. Alternatives.

(A) ALTERNATIVE NO. 1. Each Bidder is requested to state in his bid the amount to be added thereto in case all hot water piping, including the recirculating system, is seamless drawn copper tubing, iron pipe size, in place of the wrought iron pipe specified.

(B) ALTERNATIVE NO. 2. Each Bidder is requested to state in his bid the amount to be added thereto in case all hot and cold water piping, either concealed or exposed (but not including stand-pipe system or supplies at fixtures) is covered with an approved anti-sweat sectional pipe covering, properly applied.

## ELECTRICAL WORK, PART XXI

THIS CONSTITUTES THE FINAL Division of our complete specifications for a consolidated district school building, the general conditions of which were published in PENCIL POINTS many months ago, followed by the General Contract divisions, then the Heating and Ventilating and, last preceding, the Plumbing and Drainage.

The explanatory remarks introductory to the specifications for Plumbing and Drainage apply in general to the Electrical Work as well; from which it will be noted that we are pursuing the policy of specifying catalog items wherever same will serve in lieu of bulky description; also that contractors are not only permitted to substitute under the "or equal" provisions of the General Conditions, but are actually invited to suggest substitutions.

As is the case with specifications for other mechanical branches, we are merely publishing an architect's version of same for a typical job. This does not mean an elimination of the mechanical engineer as such. If the architect is enough of an engineer to prepare such specifications, well and good. If he is not, he can hire the work done, either in his own office or by a professional outsider; or he can revamp an old specification to the best of his ability.

In any event, it is well to have any mechanical specification gone over in detail by one or more of the contractors who are going to figure the work and secure a criticism of same before putting it out for bids. This is vastly different, however, from permitting an engineering contractor to actually prepare such specifications, merely having same copied in the architect's office. Anything of the sort which places an architect, in any degree whatsoever, under an obligation to a man or concern that may later be executing a contract out of the architect's office is vicious practice, utterly unethical.

## DIVISION O. ELECTRICAL WORK

*Note.* The Contract and General Conditions of these Specifications, including the Supplementary General Conditions, govern all parts of the Work and are parts of and apply in full force to these Specifications for Electric Work. The Contractor shall refer thereto as forming integral parts of his Contract.

### ARTICLE 1. Scope of Work.

(A) THE ITEMS under this Division include:

- (1) ALL ELECTRIC WIRING for Lighting and Power.
- (2) ALL CONDUIT for Light, Power and Telephone Wiring.
- (3) ALL FITTINGS AND EQUIPMENT in connection with Wiring and Conduit.
- (4) ALL LIGHTING FIXTURES, completely installed.
- (5) ALL PROGRAM CLOCKS and Wiring incidental to Same.
- (6) ALL TELEPHONE AND BUZZER WIRING, complete.
- (7) SUCH OTHER WORK as is herein set forth.

### ARTICLE 2. General Description.

*Note.* Under the headings of this Article, there is given for convenience of Contractors a brief mention, not necessarily complete, of the work included in this Division, full description of which will be found in the following Specifications beginning with Art. 3.

(A) THE INSTALLATION OF ALL WIRING, CONDUIT and fittings and equipment in connection therewith shall be in strict accordance with all local regulations and the requirements of the local Electric Company, as well as in conformity with the latest rules of the National Board of Fire Underwriters applicable thereto.

(B) WIRING PERMIT shall be secured from the proper City Official by this Contractor and the cost of same included as part of the contract price. The Contractor shall also attend to all subsequent dealings with the City Department and the local Electric Company, including all notifications to Inspectors in connection with this work.

(C) TESTS. Upon completion of this work, all parts of same shall be proven to be in perfect operating condition, in the presence of the Superintendent and Representatives of the City Department and the Local Electric Company, from each of which the Contractor shall secure and pay for certificates of approval and deliver same to the Architect. The contract price shall include all costs of tests and corrections necessary to secure such certificates and to put the entire work in condition to meet the approval of the Architect.



## PENCIL POINTS

(D) SHOP DRAWINGS AND SCHEDULES covering every feature of the work included in this Division shall be submitted for approval as specified under General Conditions. Wiring plans shall show all sizes of wire and conduit, with special indications of all variations from Architect's drawings. With schedules of fixtures, there shall also be submitted Maker's illustrations and descriptions of all items differing from those specified.

(E) CONDUIT shall be installed for all light, power and telephone wiring, but is not required for buzzer and clock wiring.

(F) LIGHT AND POWER WIRING. The Electric Service Company's mains will enter the building through the outer wall at an agreed location, approximately as indicated, where this Contractor shall provide inlet conduits, enclosed main-line switch and fuse and 3-wire connections for meter. Meter will be supplied and installed by Service Company. From same the Contractor shall extend the wiring to main panel-board and thence to each branch panel-board, and from these to each light, power, switch and receptacle outlet in the building.

(G) PANEL-BOARDS AND CABINETS shall be provided complete in locations shown, with all switches, fuses and connections as described. These shall be indicated on Contractor's shop drawings for each panel-board.

(H) SWITCHES shall be provided on panel-boards and in all other locations called for.

(I) FLOOR AND WALL RECEPTACLES shall be provided as indicated for plugs for extension cords.

(J) WIRES FOR MOTORS, not less than 20'0" long, shall be left in all locations called for, ready for connections by others. No motors are included in this contract, but this Contractor shall supervise the installation of all for which sizes are given on plans, as his certificates of approval must include all motor wiring. He shall report to the Architect all motors which are not properly connected.

(K) LIGHTING FIXTURES shall be complete as catalogued, with all glassware and lamps of the stipulated wattage. Fixtures of special design, including exterior lanterns at entrances, shall also be supplied and installed complete under this contract. Proper fixture supports and studs shall be provided for all fixtures. Cord drops, with sockets and lamps, shall be provided wherever other fixtures are not specified for light outlets indicated.

(L) PROGRAM CLOCK shall be provided in Principal's office and secondary clocks in each of 28 other locations as indicated, all with proper wiring and all necessary connections and appurtenances.

(M) TELEPHONE WIRING. Provision shall be made by this Contractor for the introduction through conduit of telephone wires into Principal's office in location directed. This includes conduit only, acceptable to the Telephone Co., which will provide the wiring.

(N) BUZZER SYSTEM shall include a push-button panel-board in the Principal's office with wire extensions to buzzers in 30 locations shown.

### MATERIALS

#### ARTICLE 4. Conduit.

(A) ALL CONDUIT shall be New Code, standard weight, mild-steel pipe of best quality, galv. outside and enameled inside, neither of which treatments shall, under test, crack or flake when conduit is bent at right angles on a radius equal to 8 internal diameters. Coatings shall be smooth, hard and flexible and the interior of all pipe shall be thoroughly cleaned by approved method. All pipe shall have full standard internal diameter and wall thickness, and shall be made by \_\_\_\_\_ or other approved Maker.

(B) OUTLETS AND TERMINALS. Knockout Outlet boxes shall be "\_\_\_\_\_" or other approved type, pressed out of single pieces of steel, galvanized inside and out, and installed at each light, power, switch and receptacle outlet. Ceiling outlets shall, unless otherwise specified, be 4" in diameter and 1½" deep inside, with knockouts as required, drilled and tapped for fixture studs. Covers shall be raised type, with approximately 3" opening and set flush with face of plaster. Boxes for more than 4 splice connections shall be 2½" deep inside. All boxes shall have lugs drilled and tapped for securing covers. Boxes shall be single or for gangs, as required. Those for floors shall be of cast iron as catalogued. Conduits terminating in panel or other steel outlet boxes shall be secured by galvanized steel lock-nuts and rounded terminal bushings. Conduit at outlets to motors shall be fitted with approved "\_\_\_\_\_" fittings. Junction boxes shall be similar to outlet boxes and shall be fitted with flat screwed covers. Contractor shall be responsible for the

building-in of boxes in proper locations and in correct relation to finished adjoining surfaces.

(C) OUTLET AND FIXTURE SUPPORTS. ½" fixture studs shall be installed for all ceiling and bracket lighting outlets; those in floor-slab construction to be "\_\_\_\_\_" or other approved hangers. Ceiling outlets in furred plaster ceilings shall have boxes with studs supported on 1" steel channels, rigidly attached to at least two furring bars. Channels shall extend well over same and shall be coated with asphalt paint.

### THE PRODUCERS' RESEARCH COUNCIL

Some of the Remarks of Mr. O. C. Harn, *Chairman*,

Made Before the Annual Convention of

THE AMERICAN INSTITUTE OF ARCHITECTS

I hardly think it is necessary, in view of the fact that the special committee of the Institute on which the Producers' Research Council was represented has been successful in presenting to you what looks to you and to us a practical solution of our problem, to go into anything like detail. But since I have been called to the platform, it perhaps might be well just to tell you a little about the Producers' Research Council from the standpoint of the manufacturers.

Information about materials is necessary to the proper conduct of any profession, any art.

The Scientific Research Department is a body which concentrates all that information in one place for you.

But there is another source which is quite as important, and that source is the knowledge which manufacturers themselves have about their own materials. Nobody knows as much about a material as the man who makes it. But there are at least two defects in this source of information.

In the first place, it is the most natural thing in the world for that information to be prejudiced.

There is another possible defect and that is that the manufacturer may not know how to make a selection from that mass of information to present to the man who does not know anything about it.

It is fairly well illustrated by a story I heard the other day of a motorist who was some miles from Johnstown, Pennsylvania, and wanted to get to that town. Why, I don't know. (Laughter). It happened that he asked a man who had full and complete information.

He answered him by saying, "Yes. Go to the first cross road, turn to the left, go on down until you see a fork in the road; take the right-hand fork. A little beyond you will find a road that looks like a main road, but that is not a main road—," and so on giving a description of nearly every foot of the road.

The information was perfect and complete, but there was such a mass of it that by the time the motorist got to the first turn he had forgotten which way to turn. There was nobody to ask but a small boy.

The boy turned from his play, and said, "Yes. Just follow the newer set of telegraph poles."

It was perfect—he had complete information about the road to town also but he selected only the essential information which that motorist should have.

Now the manufacturer in full possession of the complete information, does not always know how to tell you what you would like to know.

Now the evident way for you to get the information you want about materials is to ask the manufacturer to tell you the way you would like to have it; but it is manifestly impractical. But it is practical for you en masse to ask us en masse and instruct us as to what you want to know.

Now you, as a body, have it in your power to tell us wherein we are making our mistakes in telling you about our materials, whether en masse as a council or as individual members of the Council.

Now just a word as to what we get out of that contact as manufacturers. In numberless instances in the last three or four years, the members of the Council have gone to your Scientific Research Department, when our plans were in embryo, and we have said, "Here is what we propose to issue to architects for their information about our materials. Are we on the right track?" The answer comes back, "Yes, you are on the right line." Then we work it out in more detail and say, "Is this in good taste and good form? Is it likely to make the good impression upon the architect which we want it to make?" Then comes back the criticism, "Very good on the whole, but we advise you to elaborate this point a little bit more," or "We believe you need not say that. We think it would make a bad impression."



That part comes out. Then we get it into printed form and say, "Is this form all right?" They may say, "No, that is too small. Architects like to have something large enough so that it won't get lost in the files", or they may say it is too large to file, or that it has stiff covers and takes up unnecessary room. And so on.

When we get through with that piece of information, it is in the form which will best serve your purposes and it will best serve our selfish purposes, because if we don't get a thing the way you want it, it is a waste of money and valuable time. Printed matter is not advertising until it meets the minds of the people at whom it is aimed.

Now I want to say one word more and I am through. The question is raised in the report as to the feeling of some of the members that the Institute should not accept money from manufacturers for any purpose. This work, gentlemen, is not charity on the part of manufacturers, I assure you. We are not likely to pay out good money for some-

thing that we do not think valuable. So far the Producers' Research Council members have received value for every cent that we have paid, and we are willing to pay more on the basis of value received if this work is expanded so that we can get greater value out of it. I believe that if this work is carried out in the way that it was outlined by your Special Committee this morning, the work can be expanded so that it will not only be more valuable to you who seek authoritative information, but also to the manufacturers who have ideals high enough to work not only for the present but for the future.

We are all—manufacturers as well as architects—working for the same client, the public. Our success depends upon our serving the public. It seems to me that we can all work together on this thing without any unethical objections or charges, and it seems to me that this is one of the greatest things that has been organized for service to the public, our common clients. (Applause)

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm using them. When writing for these items please mention PENCIL POINTS.*

**Standard Specification for the use of White-Lead Paint.**—A.I.A. File No. 25a21 or 25c.—A carefully indexed and complete document covering the subject indicated for all classes of work, methods of application, formulas. Also specifications for turpentine, drier and linseed oil. Standard filing size, 32 pp. National Lead Company, 111 Broadway, New York City.

*Published by the same firm, Standard Specification for the use of Red-Lead Paint, A. I. A. File No. 25a23 or 25c3. Companion of the above covering, in a similar manner, the use of Red-Lead Paint.*

**Benjamin-Starrett Panel Boards and Cabinets.**—Catalog S-4 A.I.A. File No. 31-c-3 (Just off the press) illustrates and describes this type of panel board and cabinet for every lighting requirement. Tables, directions for wiring, numerical index drilling form, etc. 8 x 10½. 34 pp. Benjamin Electric Co., 120 S. Sangamon St., Chicago, Ill.

**Broomell System of Vapor Heating.**—Booklet describing this type of heating. Fully illustrated. Containing, diagrams, cross sections, connections and piping, typical installations. 44 pp. 7 x 10. Vapor Heating Co., York, Pa.

*Published by the same firm, Buildings Broomell Heated with Vapor, Information, Directions, Hints, Helps for the Installation and Operation of the Broomell System.*

**The Care and Cleaning of Building Marble.**—Just off the press, new booklet on this interesting subject. Contains illustrations of marble taken before and after the work of cleaning was done. 18 pp. 3½ x 6. Vermont Marble Co., Proctor, Vt.

**The Stedman Floor.**—Leaflet describing this flooring for the home, hospitals, hotels, business offices, etc. The Stedman Products Co., South Braintree, Mass.

**Panelboards—Steel Cabinets.**—Catalog No. 35 illustrates and describes sectionally built panelboards, an important line of steel cabinets, and the fittings that go with them. 64 pp. 7¾ x 10½. Frank Adam Electric Co., St. Louis, Mo.

**Aluminum Paint.**—A treatise on the physical properties of Aluminum Paint and its uses in modern industry by Junius D. Edwards, Asst. Dir. of Research. Aluminum Co. of America, Pittsburgh, Pa.

**Brass Pipe for Water Service.**—Bulletin B-1, Monograph on the subject. Typical layouts and valuable engineering data for architects, engineers, and contractors. 8½ x 11. 32 p. American Brass Co., Waterbury, Conn.

**Art Ecclesiastic.**—Brochure showing a large number of examples of wood carving as applied to church furniture and embellishment. 48 plates. 8½ x 11. American Seating Co., 14 E. Jackson Blvd., Chicago, Ill.

**Window Glass Specifications.**—Document prepared in cooperation with the U. S. Bureau of Standards. Grades and quantities of glass. Definitions of terms used. 8½ x 11. American Window Glass Co., Farmers Bank Bldg., Pittsburgh, Pa.

**Fences, Gates and Railings.**—Manual No. 60 contains complete specifications, scale drawings, details and dimensions and much other useful data on the subject. Standard filing size and form, 8½ x 11. 94 pp. Anchor Post Iron Works, 9 East 38th St., New York.

**Andersen Window Frames.**—Illustrated booklet with drawings covering design and construction of window frames. 24 pp. 8 x 11. Andersen Lumber Co., Dept. L-5, Bayport, Minn.

**Ankyra.**—Booklet showing application of this type of anchor in building construction. Sectional drawings showing details of application. 32 pp. Ankyra Mfg. Co., 149 Berkley St., Philadelphia, Pa.

**Arkansas Soft Pine Handbook.**—Text and moulding designs, grading rules, diagrams and much useful data. 62 pp. 8½ x 11. Arkansas Soft Pine Bureau, Boyle Bldg. Little Rock, Ark.

**Acousti-Celotex.**—Folder describing this product for churches and public building. List of installations. The Celotex Co. Acoustical Division. 645 No. Michigan Ave., Chicago, Ill.

**Metal Weatherstrip Details.**—Looseleaf portfolio with strong binder containing 48 pages of drawings and specification data on weatherstrips for all types of service. 8½ x 11. Chamberlain Metal Weatherstrip Co., Detroit, Mich.

**Quality Centrifugal Pumps.**—Specification folder, looseleaf, containing complete data on all types of pumps for building use, diagrams, layouts, etc. 9 x 12. Chicago Pump Co., 2320 Wolfram St., Chicago, Ill.

**The Linoleum Data Book.**—A. I. A. Classification 28-1-1. Looseleaf portfolio containing specifications for linoleum floors, together with inserts showing colors and other useful data. Standard filing size 8½ x 11. Congoleum-Nairn Inc., 1421 Chestnut St., Philadelphia, Pa.

**Fireplace and Flue Construction.**—The Cover system with diagrams, sections and details. Specialties. Also includes data on sidewalk doors and wind-proof scupper. 16 pp. 8½ x 11. The H. W. Covert Co., 137 East 46th St., New York City.

**Craftex.**—Folder illustrated with color plates, showing methods of applying this modern material on interior wall surfaces. Textures and colors illustrated and described. Specifications. Standard filing size. The Craftex Co., 146 Summer St., Boston, Mass.

**Solid Steel Reversible Windows.**—Illustrated booklet No. 1-24 covering equipment for office buildings, schools, hospitals and other structures. Sectional drawings and details. 20 pp. 9 x 12. Crittall Casement Window Co., 10959 Hearn Ave., Detroit, Mich.

**Dahlstrom Standard Construction.**—Illustrated booklet covering metal doors and trim, elevator enclosures, partitions, conduco-base, etc. Sectional drawings and specifications. 30 pp. Standard filing size. Dahlstrom Metallic Door Co., Jamestown, N. Y.

**The New Window Vogue for the Home Beautiful.**—Folder showing application of casements adaptable to all styles of architecture and all sizes of buildings and openings. Detroit Steel Products Co., Detroit, Mich.

**Economical Buildings for Farm and City.**—Catalog containing full information on the subject of Dickey Glazed Hollow Building Blocks. Contains many illustrations cross sections, floor plans, elevations, etc. 7¾ x 10¼. 42 pp. W. S. Dickey Clay Mfg. Co., Kansas City, Mo.

**Book of Fireplaces.**—3rd Edition. Very attractive and practical book covering fireplace construction, flues, etc., as well as presenting designs of the fireplaces themselves. 24 pp. 8½ x 11. The Donley Bros. Co., 13933 Miles Ave., Cleveland, Ohio.

**Ebeco.**—Bulletin "T" illustrates and describes ventilated toilet fixtures for schools, comfort stations, public institutions and factories. Full size illustrations of the new design of the Ebeco Circular Wash Sink. D. A. Ebinger Sanitary Mfg. Co., Columbus, Ohio.

**Pumps for Buildings.**—Catalog No. H-301 covers subject indicated for the information of architects, engineers and specification writers. All suitable types of pumps are described together with their capacities for all building uses. 48 pp. 8½ x 11 Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.



**Sylphon Thermostatic Water Mixer.**—Bulletin W-100 is devoted to this type of water mixer for automatically and accurately regulating temperature of mixing waters. Contains illustrations, details, tables of capacities, list prices and shipping weights, also charts showing probable consumption of hot water at 150 degrees FAHR. per hour for different fixtures in different types of buildings. 8½ x 11. The Fulton Co., Knoxville, Tenn.

**Hard-n-tyte Engineering Service.**—Booklet on the subject of floor construction and maintenance with especial reference to industrial conditions. 16 pp. 8 x 11. General Chemical Co., 40 Rector St., New York.

**GF Fireproofing Handbook.**—8th Edition. As its name implies this work covers a wide range of fireproofing materials, their uses and application. Specifications, detail drawings, tables, types of construction, etc. 72 pp. 8½ x 11. The General Fireproofing Building Products Co., Youngstown, Ohio, Dept. L.J.

**Examples of Work in Georgia Marble.**—Looseleaf portfolio containing 36 full page plates of exterior and interior details on heavy plate paper. Georgia Marble Co., Tate, Ga.

**G. & G. Atlas Systems.**—Catalog No. 1755 A.I.A. File No. 25-h-21 illustrates and describes Atlas Pneumatic Tube System and supplies with details as to saving in floor space, personnel power and maintenance and time. 8 pp. Gillis & Geoghegan, 548 West Broadway, N. Y. C.

**Forge Craft.**—Catalog 16, A.I.A. File 31-f-23. Attractive catalog illustrating and describing luminaries and wall brackets, giving dimensions and prices. 16 pp. 8½ x 11. The Edwin F. Guth Co., St. Louis, Mo.

**The Evanston Sound-Proof Door.**—Data sheets covering sound-proof doors, folding partitions and other similar equipment. Standard Filling size. Irving Hamlin, 1504 Lincoln St., Evanston, Ill.

**Blue Printing Machinery and Drafting Room Supplies.** Catalog G.—Handsome catalog containing complete line of drafting room supplies and blue printing machinery. Thumb indexed. Embossed leather binding. A most attractive and valuable addition to the architect's library. 6 x 9½. 371 pp. C. F. Pease Co., 813 N. Franklin St., Chicago, Ill.

**Struco Slate.**—Booklet, just off the press, containing new data on structural slate in white or color. Illustrations in color of recent Struco installations, specifications. 8½ x 11. 12 pp. Structural Slate Co., Pen Argyl, Pa.

**Atlantic Terra Cotta.**—Monthly magazine for architects and draftsmen. Vol. 8 No. 8 considers terra cotta in relation to the zoning restrictions. The new Evening Post Building, New York, designed by Horace Trumbauer, is illustrated in a very interesting way. Atlantic Terra Cotta Co., 19 West 44th St., New York.

**The Attractive Home—How to Plan Its Decoration.**—Handsome booklet with text by Hazel Dell Brown, profusely illustrated, containing 8 color plates and patterns in Armstrong's Linoleum Floors in color, also colored illustrations of Armstrong's Genuine Cork Linoleum Rugs. 24 pp. 6½ x 9½. Armstrong Cork Co., Linoleum Division Lancaster, Pa.

**Austral Windows.**—A.I.A. File 27-c1 Catalog No. 26 illustrates complete line with detail drawings, specifications, weather strip details, etc. 48 pp. 8½ x 11. Austral Window Co., 101 Park Ave., New York City.

**Best Bros. Keene's Cement.**—Booklet on the subject of this material containing much information, together with specifications covering all kinds of plastering, both plain and ornamental, artificial marble, etc. 24 pp. The Best Bros. Keene's Cement Co., 1040 West 2nd St., Medicine Lodge, Kansas.

**Betzco Equipment.**—Equipment for the modern kitchen and bathroom. Kitchen units, bathroom cabinets, brook closets, etc. Frank S. Betz Co., Dept. PP. Hammond, Indiana.

**The Renaissance of Colored Stucco.**—New de luxe booklet, just off the press, on the subject of colored stucco as applied to home architecture. Illustrations consist of full color plates, detail drawings, etc. A valuable addition to the architect's library. Bishopric Mfg. Co., 505 Este Ave., Cincinnati, Ohio.

**Bayonne Roof and Deck Cloth.**—Looseleaf binder containing samples of Bayonne Roof and Deck Cloth. Price list and instructions for laying. John Boyle & Co., 112 Duane St., New York City.

**Letters to and Fro.**—A booklet profusely illustrated in color presenting much useful information in attractive form concerning modern house heating, a subject sometimes regarded dull made interesting by its unusual and human treatment. 36 pp. 7 x 9. Burnham Boiler Corp., Irvington, N. Y.

**Lumber Data.**—Looseleaf folder of information sheets on California White and Sugar Pine products. 9½ x 12. California White & Sugar Pine Mfrs. Assn., 680 Call Bldg., San Francisco, Calif.

**"Introducing Cal Pine".**—Interesting book presenting the grades of California White and Sugar Pine. Included with a description of the grade is information as to its uses, sizes and forms of the material. Profusely illustrated. Contains drop siding patterns, Colonial and Bevel Sidings, tables of sizes, wood mouldings, examples of cutting values in factory grades. 49 pp. 8 x 11. The California White and Sugar Pine Mfrs. Assn., 600 Call Bldg., San Francisco, Calif.

**Lock-Joint Wood Columns.**—Catalog No. 47 illustrates and describes fully this type of column. Contains instructions for ordering, sections of columns and pilasters, tables, specifications, also many illustrations of buildings where these columns have been used. 7½ x 10. 46 pp. Hartman-Sanders Co., 2155 Elston Avenue, Chicago, Ill.

**Ready Reference Folder No. 2.**—Illustrating and describing a Josam drain for every purpose, tables, price lists, cross sections. Josam Mfg. Co., Michigan City, Indiana.

*Published by the same firm, Josam Roof Drains and Accessories for Every Roof.*

**Equipment, Furnishings and supplies for Hotels, Restaurants, Clubs and Institutions.**—Catalog E-28. Complete catalog (1926 edition) illustrating and describing fully everything needed in the above establishments. Illustrated in color, price lists, freight classification and general information for shipping, also graduated table of express charges. A very complete and valuable book. 370 pp. 8½ x 11. Albert Pick & Co., 208 West Randolph Street, Chicago, Ill.

**What Twelve Men Said About Carney.**—Attractive booklet containing testimonials of twelve well-known men. Illustrations of buildings where Carney has been used. Also contains looseleaf official architects' and engineers' specification, report of test of compression strength. 8½ x 11. The Carney Co., Mankato, Minn.

**How to Have the Right Floor in the Right Place.**—New booklet, just off the press illustrating and describing Dixie Rift end-matched flooring. The purpose of this booklet is to present information in concise form which will be of value to the layman, architect and retail lumber dealer. 16 pp. 4 x 9. Jackson Lumber Co., Lockhart, Ala.

**Lupton Projected Sash.**—A.I.A. File No. 16-e-1. Catalog just off the press illustrating and describing this type of sash for offices, schools and commercial buildings. Contains full size sash sections, specifications, standard sash units, cross sections, wall details and screen and shade details. 24 pp. 8½ x 11. David Lupton's Sons Co., Philadelphia, Pa.

**Water Supply for Swimming Pools.**—Bulletin, just off the press, giving full and complete description of the Graver Refiltering and Recirculating System. Completely illustrated. A.I.A. File No. 35-f-2. In writing ask for Bulletin 500. The Graver Corp., East Chicago, Indiana.

**Sectionfold Partitions.**—Five detail sheets worked out for convenient use in the drafting room. Scales and dimensions, hardware details and sound proofing data are included. J. G. Wilson Corporation, 11 East 38th St., New York.

**Sash Cord Data.**—Folder with illustrations, sizes and other information covering the subject of sash cords. There is included in the folder an interesting study of a Colonial Dormer Window dating from 1801. Samson Cordage Works, Boston, Mass.

**Concrete Floor Treatments.**—A.I.A. Classification 3b2 and 3b4. Specification and data portfolio covering hardening, dust-proofing and water-proofing. Carefully indexed and logically arranged to conserve the time of those having use for such a document. Complete specifications in convenient form for ready use. Standard filing size. Master Builders Co., Cleveland, Ohio.

*Issued by the same firm, portfolio No. 3 containing actual color samples of concrete treated with Colormix.*

**Keramik.**—A very attractive Brochure with 14 full page color plates telling the complete story in word and picture of Keramik, a color penetrant for concrete surfaces. Interiors as well as exteriors are shown together with specifications and complete information. 36 pp. 8½ x 11. A. C. Horn Co., Long Island City, N. Y.

**Architectural and Ornamental Iron Work.**—Catalog No. 6 illustrates and describes Safety-Lock Pressed Steel Stairs for schools, department stores, factories, banks, theatres, etc. cross sections, details. 44 pp. 8½ x 11. The Hughes-Keenan Co., Mansfield, Ohio.

**Vapor Details.**—Bulletin No. 21 contains Vapor System Details, together with standards for computing radiation and boiler sizes, cross sections, tables of sizes, capacities and dimensions, typical elevation, typical boiler room assembly, basement piping plan, etc. Much useful data. Illinois Engineering Co., N. W. Cor. 21st & Racine Ave., Chicago, Ill.

**New Ideas for Bathrooms.**—Handsome brochure in color showing twenty new Crane Bathrooms, plans, color schemes and fixtures. Also suggestions for floor plans, treatments for walls and floors, new modes in fixtures and appointments. A handsome addition to the architect's library. 47 pp. 8½ x 11. Stiff cover. Crane Co., 836 So. Michigan Ave., Chicago, Ill.

**Why Plumbers use Curtin Fittings.**—Pamphlet illustrating and describing the Curtin line of valves and tanking fittings. A. F. Curtin Valve Co., 76 Ship Ave., Medford, Mass.

**Putting Quality into Concrete Products.**—Bulletin No. 315, just off the press, attractively arranged 16 page booklet, written in easy style, well illustrated. Contains interesting data based on extensive tests conducted at the government laboratories at Rock Island, Ill. 16 pp. 6 x 9. National Lime Association, 918 G St. N. W. Washington, D. C.



# PENCIL POINTS

An Illustrated Monthly JOURNAL for the  
DRAFTING ROOM *Edited by* RUSSELL F. WHITEHEAD

KENNETH REID & E. L. CLEAVER *Published by* THE PENCIL POINTS PRESS, INC.  
Ralph Reinhold, *President*, Edward G. Nellis, *Treasurer*, W. V. Montgomery, *Secretary*



## *Pen Rendering*

WE ARE SURE THAT the readers of PENCIL POINTS will be glad to know that Mr. Arthur L. Guptill whose first book, "Sketching and Rendering in Pencil", has proven to be so very popular and useful, has for more than two years been working on a companion volume on the subject of pen work. As in the case of his earlier book, Mr. Guptill starts at the very beginning by discussing the equipment and materials which, in his experience, have brought the most satisfactory results; following this with chapters on the different strokes which should be mastered if the best results in pen technique are to be achieved.

In this book Mr. Guptill endeavors to carry the student, whether a beginner or one who has worked with a pen for years, through the various steps—all of them—which every worker with a pen should master. The introductory chapter, entitled "Some First Considerations," is published in this issue of PENCIL POINTS with the idea of showing the method of treatment followed in the book and the application of the principles shown to various types of drawings where the pen can be used to advantage. Something in the neighborhood of one hundred drawings by Mr. Guptill will appear in the finished work, together with many selected examples of the finished pen renderings by those men who have done and are doing today the best work in this difficult medium. A second installment is scheduled for publication in the

October issue of PENCIL POINTS and it is hoped that the finished book will be published about the end of the year.

## *Craftsmanship and the Drafting Room*

IT HAS BEEN SUGGESTED to us that we might properly include in PENCIL POINTS a series of comparatively short articles dealing with various phases of craftsmanship directly connected with buildings. A series calculated to bring the draftsman and the craftsman into closer harmony and understanding. To start the ball rolling we present in this issue an article by Alfred E. Floegel

dealing with stained glass. Articles on wrought iron, special hardware, wood carving, plaster ornament decorative tile work, mural painting and the treatment of wall surfaces, both exterior and interior, have been suggested.

Now how do those of you who subscribe for and read PENCIL POINTS feel about a series of this character? Are you interested in the subjects listed above and have you others to suggest? It is difficult for us sometimes to form a correct judgment as how best to use the space at our command. We sense a growing appreciation of and interest in genuine craftsmanship and have a distinct feeling that the craftsman and those who design our buildings could both gain much by knowing each other better.

## Contents

The Design and Construction of Stained Glass Windows	
By Alfred E. Floegel	459
Pen Drawing, Chapter I	
By Arthur L. Guptill	471
Shop Drawings of Millwork	
By W. E. Schlimgen	473
American Gas Association Small House Competition	481
Plates	487
Renderings in Color	Insert
Paris Prize Drawings	495
Whittlings	501
Here & There & This & That	
Conducted by R. W. R.	510
The Specification Desk	514

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CAMERA STUDY BY J. FRANK COPELAND  
"VENICE"



# PENCIL POINTS

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## THE RELATIONSHIP BETWEEN THE ARCHITECT AND THE DRAFTSMAN

*By R. Clipston Sturgis*

AS THE SUCCESS of an Architect who has passed the early stage of doing most of the work with his own hand depends very largely on the ability, faithfulness and intelligence of his draftsmen, his relations with them are of prime importance.

One may put these relations under six heads. In the office:

- (1) Teaching the fundamentals of plan and of design.
- (2) Teaching the fundamentals of construction.
- (3) Teaching the fundamentals of the drawings as the guide for work in the field.
- (4) In all this establishing a spirit of friendly co-operation.

Outside the office:

- (5) Encouraging and aiding reading, study and a love of the arts.

These five subjects will be taken in more detail.

(1) The fundamentals of plan and design. However thorough the training of a student in the schools, actual office practice is a new field and must be learned. The plan is no longer a school problem, but is to become the definite material which will enable estimators to understand clearly what construction, material and workmanship is called for, and which will enable mechanics to know with certainty just what the Architect desires, and requires, and what the Owner has agreed to pay for. This needs clear thinking on the part of the draftsman. He must for the time completely subordinate

draftsmanship as an art to draftsmanship as a business proposition. The result is to be, not a poetical effusion, nor a burst of oratory, but a legal document which will stand the test of use. The Architect

can be of great use to the draftsman here in teaching him to look at the drawing from the point of view of the estimator, the contractor and the mechanic. There should be no unnecessary lines added, and there should be no essential lines omitted. Detail, once drawn carefully and completely, should not again be drawn where it is repeated; the time which would be spent in this is better spent in drawing the one example as completely and perfectly as the scale permits. The places where it is repeated should be so clearly marked as to be unmistakable. This one thing is used as an example. It is typical of many others marking the workmanlike, businesslike character of what are properly called "working" drawings. The Architect's own drawings should illustrate this, for the draftsman.



R. CLIPSTON STURGIS

Under this first heading comes design and here the Architect can help the draftsman best by encouraging him to develop sketches in the spirit of the design and giving him time for study in the library, with books and photographs.

(2) The fundamentals of construction. The plan for a modern building is a complicated balancing and reconciling of a great many factors, and those major trades which influence the construction should be embodied in the original drawings, and



must never be lost sight of as the drawings are developed. Masonry, steel work, carpentry, roofing, plumbing, heating and power, all require consideration in planning the structure. Here again the student will have acquired but little to help him in the schools, and must depend on the architect to learn to handle all these intelligently.

His drawing must be of the head as well as of the hand, and he must remember, points of support, spans, the bearings for loads, the spaces necessary for plumbing and heating pipes, shafts for various purposes, and never lose sight of these as he works from small scale to large, and from large to full size. The architect who has been through the mill, and made for himself all the usual mistakes, can help the draftsman to avoid some, and should not be over-harsh with the draftsman for the mistakes he inevitably makes. It is one of the most amazing things in the profession that just when you and your trained draftsman have got to the point when you do not make the common mistakes, new draftsmen come in and the old mistakes again creep into the working drawings. Some architects have devised elaborate systems to help their draftsmen to avoid the most obvious and common ones, but with no great success. The architect must teach the draftsman to think.

(3) Teaching the fundamental of the drawings as the guide for work in the field. The architect can help the draftsman most by giving him the opportunity so see work in the field and understand the significance of lines and figures, and their interpretation. Under our conditions it is not easy to do this. To take a draftsman from his board where he is earning his salary and send him to the job, not to inspect, but to study and learn, is obviously something that cannot be done except at someone's expense. A young draftsman, earnest and eager to learn would need only encouragement from the archi-

tect to make such visits in his own time, or to get time off with out pay for the purpose. It is a valuable and indeed almost necessary experience and the architect owes it to his draftsmen to see that they get it.

(5) Outside the Office. The architect may well guide and encourage the draftsman's study and reading and above all free-hand drawing. The latter is a very valuable asset and one which everybody can acquire, as easily as he learns how to write. Facility in free-hand drawing is much more common than it was forty years ago, but even now the value of rapid and accurate draftsmanship is not valued as highly as it should be and the architect can do much in helping his draftsmen to obtain that.

One cannot do more than suggest, in a broad way, what the relations should be between architect and draftsman and one has not so far touched on the reverse side, the draftsman's obligations toward the architect. This is partly because draftsmen as I have known them have shown a very high standard of appreciation of their work, and of the obligations of service. The draftsman generally has a whole souled interest in his work, and his failures are largely those which are the result of inexperience, or of failure to remember that he is working for the eyes and head of a mechanic and not for those of a school professor.

What has been said, however, will apply very differently in practice in offices of different sizes, but the end that every architect has in view is to have a drafting room that will turn out drawings as well or better than he could himself, as fast or faster, and without any of the mistakes which even he makes at times. The hardest architect to work under is the man who never draws, therefore never makes mistakes, and the best is the one who draws, works with and among his men, and is in constant touch with the drawing-boards. Example and encouragement are better stimulants than abuse.

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*The subject of the relationship between the architect and the draftsman is one which directly concerns the readers of PENCIL POINTS. We have arranged for a series of discussions of this subject by a number of America's leading architects and will present a paper in each issue until further notice. Contributions to the discussion will appear by the following:—J. Monroe Hewlett of New York, Walter W. Judell of Milwaukee, Albert Kahn of Detroit, Edwin H. Hewitt of Minneapolis, H. Van Buren Magonigle of New York, F. R. Walker of Cleveland, Charles D. Maginnis of Boston, Myron Hunt of Los Angeles, Leon C. Weiss of New Orleans, William A. Boring of New York, William Leslie Welton of Birmingham, William Emerson of Boston, and Irving K. Pond of Chicago.*



# THE DESIGN AND CONSTRUCTION OF STAINED GLASS WINDOWS

By Alfred E. Floegel

EDITOR'S NOTE: *The author of this article was a Fellow in Painting of The American Academy in Rome during 1922-1925, and while in Europe made a special study of Stained Glass, Mosaic, and Fresco. He is, therefore, well qualified to write on this subject. In future issues of Pencil Points he will take up Fresco and Mosaic Decoration with special reference to the importance of Co-operation between the Architect and the Painter.*

MANY BOOKS HAVE BEEN written on the subject of stained or painted glass, in which the history of its development as an art and the technical aspects of its manufacture have been covered very thoroughly. The subject is a vast one and it is obviously not within the province of this short article to attempt to cover the whole field. There are, however, some features relating to the design and construction of stained glass windows which may be advantageously described in brief for the benefit of architectural draftsmen. It is the author's modest hope that the information here set down may be of assistance to them when they are faced with this special architectural problem which is likely to occur in any architect's life.

When we think of stained glass we are prone to conceive of it as altogether ecclesiastical in its uses. True, it was developed by the mediaeval church builders to solve a part of their particular problem of decoration, and was brought by them to a glory of perfection exemplified in the great cathedrals of Europe. Though the greater number and the most beautiful windows, however, belong to the church, there is no logical reason why we should confine the application of this highly decorative art entirely to churches today. Indeed we do not, for we find stained glass, more or less excellent, used increasingly in public buildings, libraries, schools, and even residences.

Although it is popularly supposed that the secrets of the mediaeval stained glass workers are lost to us, the fact is that the craft is at present flourishing, in this and other countries, maintained by an appreciable number of shops working under the direction of master craftsmen and artists who are endowed with the true love of their art. They can turn out glass, moreover, which has all the quality of the old glass. If our

modern windows are inferior to the mediaeval product it is not the fault of the glass makers or craftsmen but that of the artists, who are trained mostly to work in other media and who have, except in isolated instances, paid little attention to stained glass as a means of artistic expression. Public taste has also played its part in holding down the art, but happily conditions in that respect are improving.

It may be asked, "Where are stained glass windows to be appropriately used?" History and tradition find a place for them in churches but as I have stated above, there is no real reason why they may not be used in many other types of buildings. The art is an exceedingly decorative one, very closely allied with that of mural painting. It has individual decorative characteristics, which can be used to enhance the beauties of architecture or conversely abused to produce incongruity and ugliness. Wherever we have a room in which it is considered desirable to introduce color decoration and where at the same time we can afford to allow a more or less subdued light, stained glass may be used as the color feature. It must not, however, be allowed to clash with other color which may be in the room. Color wall decoration, juxtaposed to a stained glass window should be broadly treated so that it will not compete with the glass for attention.

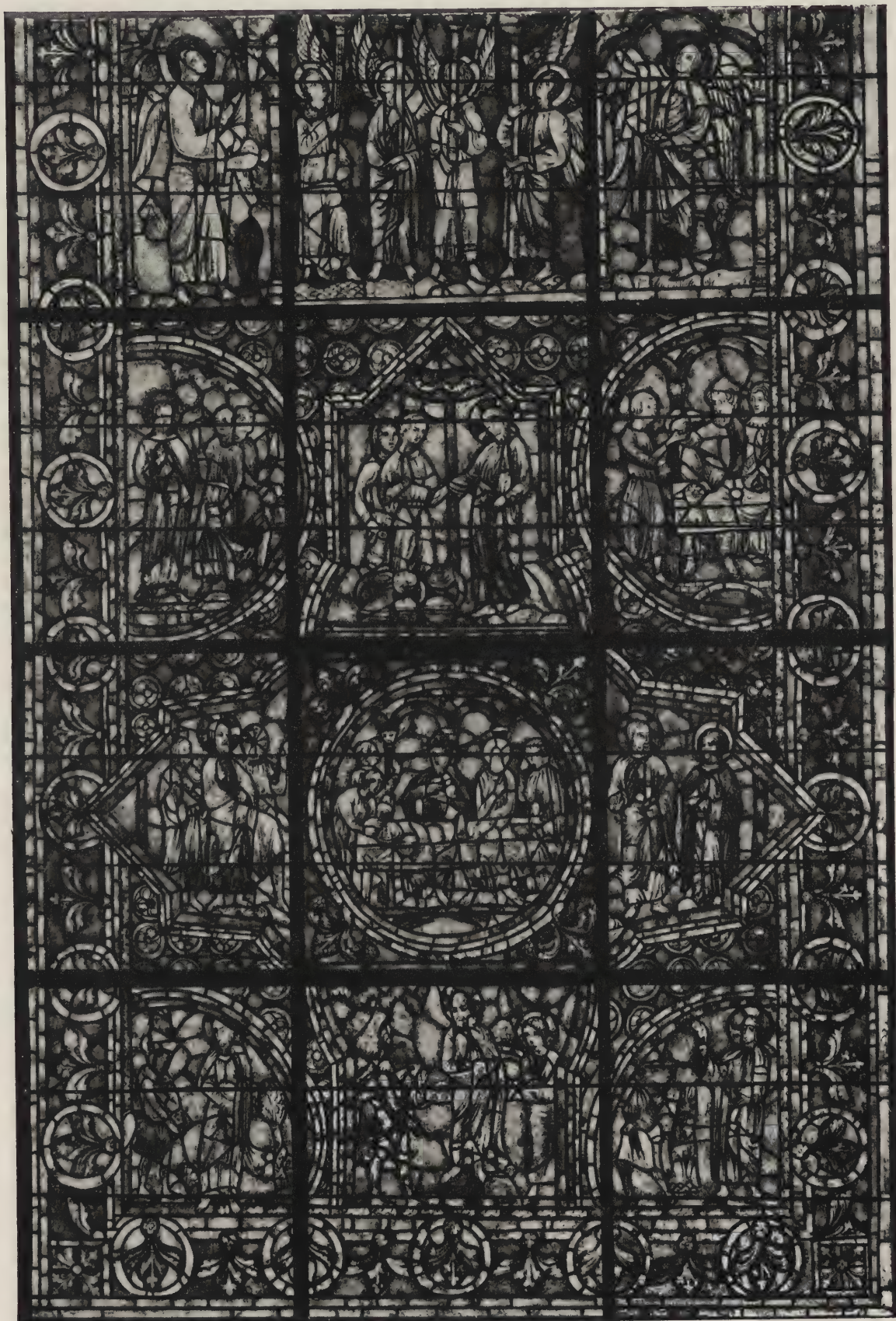
Several principal factors influence the design of any particular window. First and most important is the surrounding architecture, which sets the period and determines the shape of the win-

dow. Gothic, Romanesque, and Renaissance windows are familiar and obviously should be used where the architecture is of like character. There are, however, possibilities in "modern" architecture for the development of "modern" design in stained glass, just as such men as Edgar Brandt have de-



DETAIL FROM LE MANS





CHARTRES, PORTION OF THE MADONNA WINDOW  
FROM THE COLOR RENDERING BY ALFRED E. FLOEGEL





DUOMO, FLORENCE, WINDOW BY Ghiberti

FROM THE COLOR RENDERING BY ALFRED E. FLOEGEL

veloped the modern spirit in decorative wrought iron. The excellence of the result depends of course upon the genius of the individual designer.

The second factor, partly dependent on the first, is the position of the window both in respect to the strength and direction of light and to the direction and distance from which the glass is to be viewed. In a church, where the desirable effect is one of dimness and mystery, the light transmitted by the glass will be comparatively low in intensity and colored glass will predominate. In a library, on the contrary, the window will very likely be made up largely of light glass. Again, the design will be in-

fluenced by the question of whether the glass will be seen closely or at a distance, at the eye level of the observer or well above him.

The third consideration is one of architectural or artistic judgment; that is, whether the color design or the pictorial subject is to predominate. In memorial windows it is usually necessary to stress the subject; the color, while it is present, is secondary. Some of the most beautiful windows in existence, however, depend for their beauty almost entirely on the vibrant loveliness of their color. Their subject matter is divided up into small panels at small scale so that in order to concentrate on the





GERMAN GOTHIC GLASS AT ULM, PART OF MAIN WINDOW OF SANCTUARY  
FROM THE COLOR RENDERING BY ALFRED E. FLOEGEL



## THE DESIGN AND CONSTRUCTION OF STAINED GLASS WINDOWS

pictures it is necessary to approach closely enough to get away from the magic fascination exerted by the color harmony of the whole.

The first step to be taken after it is determined to install a window is for the architect to consult with the painter or stained glass man who is to carry out the work and inform him of the conditions. After talking over the suggested ideas for the subject, intensity of light, color scheme and so on, the painter makes several studies at small scale in color. In further consultation with the architect it is decided which of the studies is to be developed. The painter then makes a careful finished drawing in color, showing glass, lead lines, and "arming" or iron framework. In doing this he exercises his talents as an artist, making the line and color composition as beautiful as his ability permits.

It may be well to point out here the influence of the lead lines upon the design as a whole. The lead lines are used, of course, primarily to hold the different colored pieces of glass in position. Their "raison d'être" is therefore utilitarian but they do contribute a great deal to the effect produced by the window. In the first place they must be regarded from the standpoint of line and space composition. They must not be obtrusive or clash with the composition of the subject. Considered without the glass they must form a pleasing design in which variety, rhythm, and line harmony are present. They are partially determined by the outlines of the subject but there are many areas of a single color which must be broken up pleasantly into pieces small enough to be in scale with the rest. Secondly, the lead lines affect the color of each piece of glass in the window. Two pieces of different colored glass held side by side do not give the same effect as they do when the black line of the leading is interposed between them. The dark lead intensifies the color value of each piece very materially and this fact has to be borne in mind all during the process of making the window.

When the color rendering is finally acceptable to the painter and to the architect, a full size black and white drawing of the entire window, (on several sheets if it is large) known as the "cartoon", is made. This cartoon is generally made on detail paper with charcoal or crayon, and shows the actual shape and size of every piece of glass in the window. It may be "squared up"

from the color drawing or may be enlarged by photostating. In fig. 1 a cartoon may be seen on the wall behind the artist.

When the work has been carried to this point the process becomes for a while mechanical. The cartoon is turned over to a workman who makes from it two carbon copies by tracing over all the lead lines. By reference to the color sketch each space representing a piece of glass on one of the resulting picture puzzle diagrams is lettered with the initial letter of its color. Each space on both diagrams is also given a number to make assembling of the glass easy. The diagram marked for color is then cut up into its individual pieces either by means of a pair of double bladed scissors or with a double bladed knife (see fig. 5). The space between the blades of both of these implements is equal to the thickness of the cross bar of the H shaped section of the leads. In this way the patterns are made so as to allow the proper space for the leads between the pieces of glass when they are assembled. The other diagram is retained and is used later on when putting the window together.

We now come to the question of selecting the glass to be cut up to fit each individual piece of the pattern, and this makes advisable a short discussion of the different varieties used. Until this time I have referred to the material we are considering as stained glass. Properly speaking there is a great difference between *stained* and *painted* glass, though the word "stained" has by popular usage long been accepted as a term to include both. *Stained* glass or *grisaille* is either white or colored glass which has been treated with a stain, made up usually of silver salts, and then fired. The result of this staining process is to produce some shade of yellow or orange which may be either evenly distributed or graded. If stain is applied to colored glass the resultant effect is to produce the hue which would be obtained by combining the original color of the glass with yellow. Blue glass, for example, when stained becomes green. *Painted* glass is either white or colored glass which has been painted with metallic pigments and fired. Both sorts of glass are usually,

though not necessarily, present in most so-called "stained" windows.

Glass which is of one color throughout as it comes from the makers is known as *pot-metal* glass. Some



FROM THE CATHEDRAL,  
AUGSBURG, GERMANY



colors such as red or "ruby" are too dense to be used solid and are hence made up of white glass coated, or flashed, with a thin layer of colored glass. This is called *flashed glass*. By flashing one color on glass of another color it is possible to produce many agreeable effects. *Plated glass*, a third but less common variety, is made up of two sheets of pot-metal glass, of different colors, closely united together. Doing this produces a tint different from that which would be obtained by fusing the two colors together in the melting pot.

Stain penetrates the glass to a measurable depth and is as transparent as the glass itself. The paint, however, only adheres to the surface and is always more or less opaque.

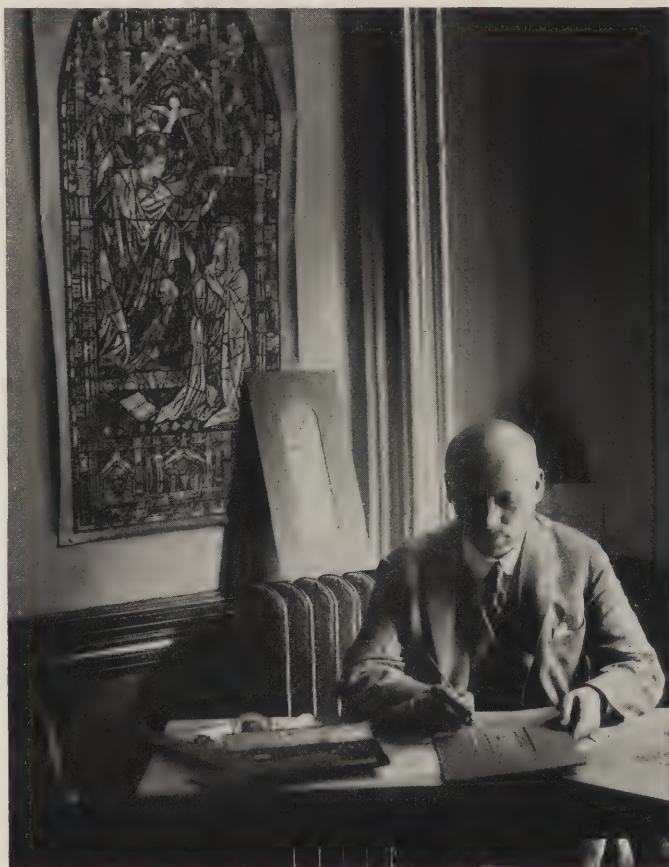
In selecting glass for the elements of the window, the artist, with full knowledge of the effect he wishes to produce, picks out pieces which will give him the color and texture he wants. To fill any certain space he may decide to use colored pot-metal glass, or a piece of white glass upon which he can paint, or a piece of flashed glass which may be etched where white lines or areas are necessary. Every piece is selected with great care and always considered in reference to the adjoining pieces. This matter is of the greatest importance and requires all the skill and judgment the artist is able to give it.

The glass once selected, the proper pattern is laid upon each piece and the workman cuts it to shape with a diamond or glass-cutting tool. When all the pieces are cut, they are assembled on a large sheet of plain white glass set in a frame, under which the aforementioned numbered diagram of the whole design is placed for reference. Each piece is then fastened in position on this glass "easel", with melted wax composed of beeswax and resin. Figure 3 shows this process, together with an assembled cinquefoil already on an easel, where the dots of wax and the spaces between the pieces to allow for the lead lines are clearly evident. Of course, only a comparatively small window or a panel of a window can be assembled in this way at once. The assembled design is now placed against the light and the artist

inspects it critically. If any pieces of glass are of the wrong color or value, new pieces are cut and put in their places. When all the glass is satisfactory it is placed upon the cartoon, either piece by piece or several pieces together, and the outlines of the design are traced with mineral color which can be fixed in place by firing in the kiln. This color is usually mixed in oil and is ordinarily brown.

Those pieces which require further painting to produce modelling of the forms are then painted over with a flat wash of water color paint mixed with a little gum arabic. This does not in any way affect or disturb the oil paint outlines previously

applied. The modelling is done by stippling with old blunt brushes held at right angles to the surface. Each dab of the brush removes some of the paint and gathers what remains into numerous little dots. By a dexterous use of the brush, portions of color of different degrees of thickness are removed according as shadows, halftones, or lights are required. Wherever the glass is left bare by a complete removal of the color, we get the lights; the places which the brush has spared give the shadows. Partial removal of the color gives the halftones. The operation is what the French very aptly call "*peinture par enlèvement*". In figure 4 this process is shown under way on two circular panels mounted on an easel. For a larger composition the



Courtesy of A. L. Brink

FIG. 1, WORKING ON THE COLOR STUDY

stippling would necessarily be done on one or a few related pieces at a time.

When the stippling is all done the glass is ready for firing. It is laid, painted side up, on a large sheet-iron tray upon which there is a layer of whiting or plaster of Paris to protect the glass from danger of fusing to the metal. The tray is then slid into the gas furnace or kiln which is run up to a temperature of about 1200° Fahrenheit. The operator watches the condition of the glass through a small aperture and when the colors reach the fusing temperature the gas is shut off and the glass is allowed to cool. When cooled it is ready for assembling and the paint is permanently set so that it cannot be rubbed off. If it were necessary or de-





WINDOW AT CERTOSA, ITALY, ATTRIBUTED TO RAPHAEL  
FROM THE COLOR RENDERING BY ALFRED E. FLOEGEL





MARGRAFEN WINDOW, ST. SEBALDUS, NUREMBURG, GERMANY

FROM THE COLOR RENDERING BY ALFRED E. FLOEGEL

sirable to do additional painting on any piece, the process could be repeated several times without harming the glass.

The glass is finally assembled with the leads on the diagram as shown in figure 3, one piece at a time. A piece of glass is placed on its proper space and surrounded with a strip of lead, which is H shaped in section as shown in figure 5. The lead is held in place temporarily by several long thin nails driven into the table top, until the next piece is

fitted alongside and surrounded with lead. This procedure is followed until the entire panel is built up. Around the outside there is generally placed a wider lead to give greater stiffness to the whole. All the joints are soldered on both sides of the window. The joints are made weather-tight by scrubbing a sort of putty over both sides with an ordinary scrubbing brush until all crevices are filled. The surplus putty is then wiped off leaving the glass clean.



THE DESIGN AND CONSTRUCTION OF STAINED GLASS WINDOWS



FIG. 2, ASSEMBLING GLASS ON EASEL FOR INSPECTION



FIG. 3, CUTTING THE GLASS AND ASSEMBLING WITH THE LEAD





FIG. 4, STIPPLING OR "PEINTURE PAR ENLEVAGE," GLASS ASSEMBLED ON EASEL WITHOUT LEADS



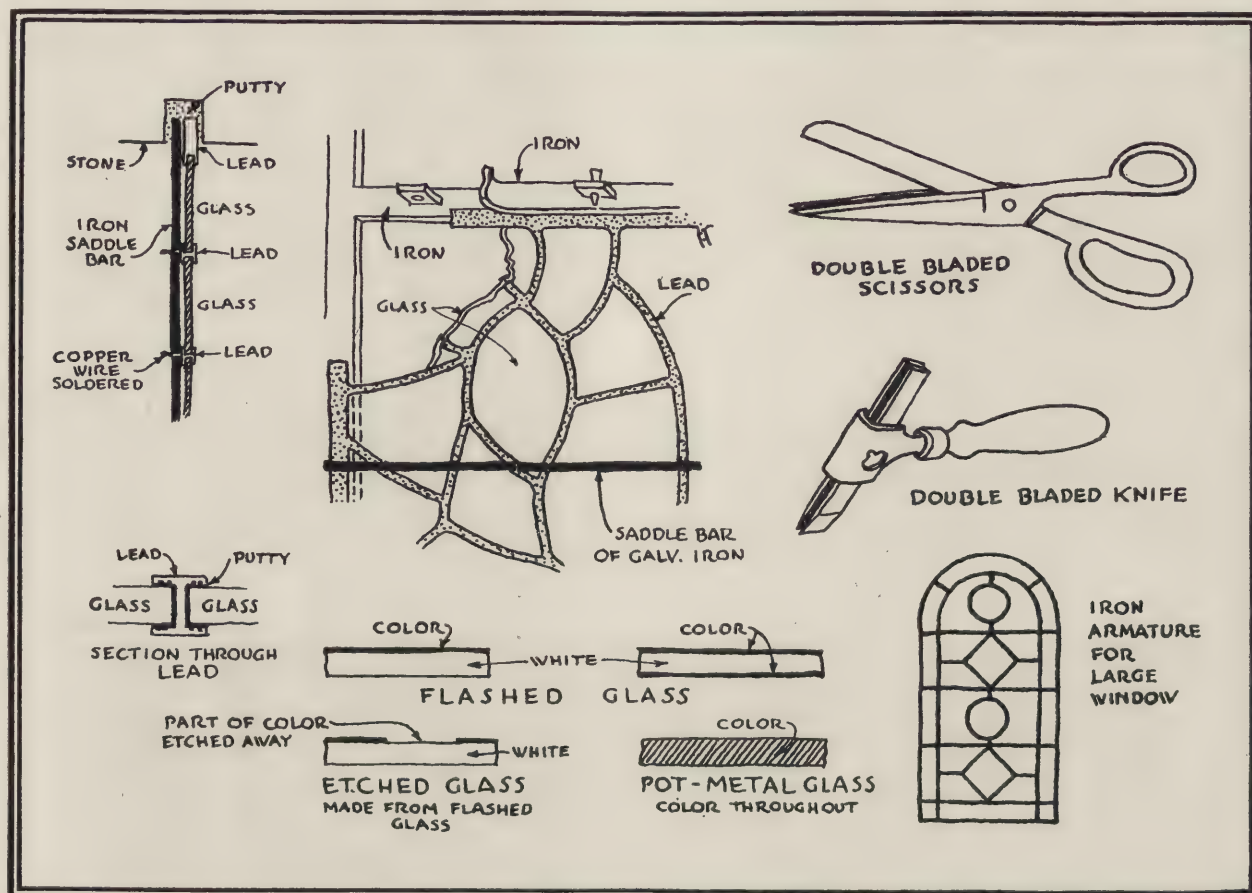


FIG. 5, DETAILS AND TOOLS

For a large window, an armature is built of galvanized iron, using pieces about 1" x  $\frac{1}{4}$ ", though these dimensions vary. The main thing is to have the structure strong enough to sustain the window and give it stiffness. The divisions of this armature are, of course, determined early in the game when the design is being made. The glass for each panel is assembled as a unit. These panels are held in place as shown in the sketch in figure 5 or by some similar method which has proven satisfactory. If the panels are too large to be sufficiently rigid, saddle bars of about quarter inch round iron are fastened across the leads at about one foot intervals by wiring with copper wire and soldering.

Examination of the illustrations of windows given here will bring out the arrangement of the armatures and saddle-bars and will show how they count as a part of the design and yet are so placed as to be as inconspicuous as possible.

The monk, Theophilus, who lived in the tenth or eleventh century, has left us a very complete account of the mediaeval methods of making glass and building stained glass windows. I think it will be interesting to compare the old ways with present day practice as outlined above and am therefore taking the liberty of quoting here, in conclusion, parts of his description "Of the Making of Windows". The process, it will be seen, is the same in its essentials as our modern method, differing only in details.

"When you desire to construct glass windows, first make yourself a smooth wooden board of such length and breadth that you can work on it two panels (partes) of each window. Then take chalk, and scraping it with a knife over the whole table, sprinkle water thereon in every part, and rub the table entirely over with a cloth. When it is dry, take measure of the length and breadth of one panel (unius partis) of the window, describe it on the table by rule and compass, with lead, or tin. If you wish to have a border in it, draw it of such a breadth as pleases you, and with such workmanship as you wish. This done, draw as many figures as you like, first with lead, or tin, then in the same manner with a red, or black colour, making all the strokes carefully, because it will be necessary when you shall have painted the glass to join the shadows and lights (on the different pieces of glass) according to (the plan of) the board. Then arrange the various draperies, and mark down the colour of each in its place, and whatever else you wish to paint; mark the colour by a letter. After this take a small leaden vessel, and put in it chalk pounded with water; make yourself two or three hair pencils, vis., of the tail of a martin, or ermine, or squirrel, or cat, or of an ass's mane. Take a piece of glass of whatever kind you please, which must be every way larger than the place it is to occupy, and lay it flat on this place. When you have seen the strokes on the board



through the glass, draw with chalk upon the glass the outer strokes only, and if the glass should be so dense that you cannot see the strokes on the board through it, take a piece of white glass and draw on that, and when it is dry lay the opaque glass upon the white, raise it against the light, and draw on it what you see through it. In the same manner you will mark all kinds of glass, whether for the face, or the drapery, hands, feet, or border, or wherever you wish to place colours.....

"These things having been thus completed, take pure tin and mix with it a fifth part of lead, and cast as many rods of it as you want; with which you will solder your work. You should have also forty nails, one finger long, which should be at one end slender and round, and at the other square and perfectly curved, so that an opening may appear in the middle. Then take the glass which has been painted and burnt, and place it according to its order, on the other part of the board on which there is no drawing. After this take the head of one figure, and surrounding it with lead, put it back carefully in its

place, and fix round it three nails with a hammer adapted to this purpose. Join to it the breast, and arms, and the rest of the drapery; and whatever part you join, fix it on the outside with nails that it may not be moved from its place. You should then have a soldering iron, which ought to be long and thin, but at the end thick and round, and at the extreme end of the roundness, tapering and thin, filed smooth, and tinned. Place this in the fire. In the mean while take the pewter rods which you have cast, cover them with wax on all sides, and scrape the surface of the lead in all those places which are to be soldered. Having taken the hot iron, apply the pewter to it wherever two pieces of lead come together; and rub with the iron until they adhere to each other. The figures having been fastened, arrange in like manner the grounds of whatever colour you wish, and thus piece by piece put the window together. The window having been completed and soldered on one side, turn it over on the other, and in the same manner by scraping and soldering, make it firm throughout."



*Courtesy of A. L. Brink*

FINISHED GLASS PANEL IN THE MEDIAEVAL MANNER

ADAPTED FROM WINDOW AT LE MANS



# PEN DRAWING, CHAPTER I

*By Arthur L. Guptill*

PEN DRAWING, AS A SEPARATE and complete form of pictorial representation, is a thing of comparatively recent date, its greatest development having taken place since the beginning of the last quarter of the 19th century.

This of course does not mean that pen drawing was unknown prior to that time, for such is far from the case. One has but to recall the illuminated manuscripts of the Middle Ages to realize with what skill pen lettering and certain types of decorative design were then done, but in this work the drawing was subordinated in nearly every instance to the lettering itself, or the pen lines in the illuminations were merely outlines or framework for the colored embellishments.

Again, if one brings to mind the many pen sketches and studies made centuries ago by some of the most famous of our old masters it will be realized that the pen was turned to with great frequency even in their day. Analysis of their pen drawings makes plain, however, that this early work was usually in the form of preliminary studies for paintings or parts of paintings, or was much in the nature of a sort of pictorial shorthand by means of which facts of interest were vigorously and sometimes, it must be admitted, rather crudely recorded. Apparently no attempt was then made to develop pen drawing as an art by itself, and it is only during the last few decades, as we have stated above, that this has been done. Today pen drawings are made not simply as adjuncts of another art or as means to certain ends, but as finished and complete things.

Undoubtedly the invention and gradual improvement of the various processes of photo-mechanical reproduction, which have provided comparatively cheap and faithful methods for the reproducing of pen work, have afforded a great impetus to this development, for publishers have not been slow to take advantage of these processes and have thus created a demand for drawings in this medium, which artists in turn have hastened to meet.

Pen drawing has received encouragement, too, through the gradual perfection and standardization of the materials used,—pens, inks and papers,—of all of which an infinite variety may now be easily obtained at reasonable cost, permitting selections suitable for any purpose.

Even with these encouragements it is doubtful if pen drawing as an art would have so soon advanced to the enviable position it at present occupies had it not been for a realization on the part of the artists who contributed most to its development, that the pen, because of its peculiar qualities, was a medium demanding a far different treatment from that accorded any other.

It may be well to pause here for a moment for a consideration of certain fundamental principles which bear on all art work,—principles with which these artists were undoubtedly familiar,—and to see in what way they are applicable to pen drawing.

First, the reader should be reminded that each of the fine arts has certain restrictions as a result of which characteristic conventions have been developed. This thought will be amplified in a moment.

Secondly, unless one bows to these restrictions, and accepts along with them such conventions as have been found to naturally accompany them, he is usually loading on to himself a heavy handicap so far as artistic accomplishment is concerned.

To illustrate this first thought, the sculptor, using plastic materials, is able to correctly copy many of the forms of nature, but is forced by his medium to largely disregard their color. The painter, on the other hand, can show their color, but contrary to the worker in plastic materials he is limited by his canvas to the delineation of only two dimensions, being forced to resort to conventionalities for the representation of the third. The worker in brush and wash of gray is forced to still further employment of convention, for he must interpret color in terms of various tones of gray ranging from light to very dark. Such mediums as charcoal and crayon are frequently used in much the same way as wash, adopting similar conventions, yet these mediums may be employed in a linear manner, too, in which case new conventions come into play, particularly the use of outline and the suggestion of color and light and dark by means of various combinations of openly spaced lines. The pencil, though capable of being handled much like wash or charcoal or crayon, has also certain distinctive characteristics, notably its ability to hold a sharp point; these demand equally distinctive conventionalized treatments.

And now we come to the pen and its own limitations and conventionalities. Of both there are many, perhaps more than for any other medium. It might seem that this would put the pen at a distinct disadvantage, yet the ever-increasing popularity of pen work seems to indicate that the contrary is true. The pen is a linear tool, but unlike the crayon or charcoal or pencil it gives off no color or tone itself. Instead it serves as a vehicle of transmission of ink from bottle to paper, acting in this sense much like the brush. Unlike the brush, however, it has a rather fine and stiff point, capable of holding only a very limited amount of ink, a limitation which makes it an impractical instrument for covering large areas of paper surface. This limitation acts in two direct ways. It tends to keep pen drawings somewhat small in size, and makes the use of a large variation of value in tone as well as big areas of it extremely difficult. It should be borne in mind that every line made with a pen is absolutely black (colored inks being a rare exception) against a background of paper which is usually white. This means that color must necessarily be disregarded altogether or suggested by the white of the paper or by various combinations of jet black lines. Tones of light and dark, too, must be ignored or suggested in similar manner. In order to build a value of gray



it is necessary to dot the surface with stippling,—a little used treatment,—or to lay individual black lines side by side, or crossed in series. If one wishes to subsequently darken a tone obtained in one of these ways he must painstakingly enlarge each existing line or dot or must put more lines or dots into the area. (Compare this with wash, by means of which it is possible to produce quickly and easily almost any given value, or to wash over and still further darken one.) To lighten a tone and still keep it in good character is practically impossible; if it is too dark there is nothing to do but erase (and in pen work this is far from easy) or put a patch on the paper and begin again.

It is because of these various technical difficulties of working with a fine point in black ink on white paper that it is so extremely hard to build up values corresponding with all those in nature; it is for this reason that the less positive ones are disregarded, and the others simplified or merely suggested.

If color or tone is disregarded we must substitute something for it unless the forms are to be lost; it is here that we resort to the conventionality of using outline, particularly where we wish one light object to stand out against another. The pen is an especially fine instrument for this outline work,—not only is it unexcelled for the sharp delineation of shape and for precision of draftsmanship, but its lines, even though jet black, may be made very expressive of all sorts of irregularities of form and texture.

This use of outline, together with the method of tone building by means of lines (or dots) as touched upon above, are two of the most distinctive characteristics of pen drawing. There are many minor conventions in use, to be sure, to which we are so accustomed that we hardly think of them at all; methods of suggesting shadow tones, for instance, and trees and clouds and the textures of building materials, and so on throughout a long list.

So these are the important restrictions and limitations and the resulting conventionalities of pen drawing,—the facts which were recognized by those artists who made the art what it is, and which must still be recognized by those who would emulate them. If one tries to make a pen drawing larger than the instrument warrants, or attempts to carry gray tones all over his paper, or in any way disregards the peculiar properties of his medium, he will be forcing it to do that which it is not best adapted to do;—whatever success results from such methods is almost sure to be technical rather than truly artistic.

This does not mean that one is so bound down that individuality is impossible; quite the contrary is the case, for it is often true that the more conventional the art the greater the opportunities for originality. We might go so far as to say that there is perhaps no medium offering one a better chance for the development of a personal technique, for pen drawing is akin to handwriting and just as no two people write alike, so no two people draw alike.

We have already mentioned the popularity of pen work. Part of this is undoubtedly due to the methods of reproduction to which we have previously referred. Part of it, as we have said, is due to the ease and cheapness with which the necessary

materials may be secured. Yet aside from all such causes pen drawing has made a lasting place for itself among the fine and applied arts through its intrinsic merits alone. Pen drawings, in their simple black against white, have a crispness and directness that is appealing; they are full of life and light. Many of them are only suggestive, leaving much to the imagination, and we take pleasure in this. A few lines here, and a few touches there, and sometimes that is all, yet there is a power to this suggestion which often makes photographs, telling everything, seem stupid by comparison.

This virtue of line drawing over photography is realized even by "cold blooded" business men, or by the advertising experts representing them, as is evidenced by the great use of pen work for advertisements, even in a day when commercial photographers are existing on every hand.

Perhaps this popularity of pen work for advertising purposes has come about partly because reproductions of pen work harmonize so beautifully with the type matter of the printed page, due largely to their scale, their linear quality and to the fact that they are printed on the same paper with the same ink. And this harmonious quality is undoubtedly one of the main reasons why pen illustrations for books and magazines and all sorts of similar press work are in such great demand.

It might seem that the strong contrasts of black and white in pen work would prevent such subtleties of representation as many subjects require, yet there is ample evidence in the form of drawings that this is not the case. In fact there is a delicacy to much pen work which is lacking in the work of other mediums.

Another point in the favor of drawings done with pen and ink, and one which should not be forgotten, is their cleanliness. Many mediums rub or soil easily, but pen drawings not only keep clean themselves, but do not soil other drawings with which they come in contact. And neither do they fade.

Here, then, are some of the leading characteristics of pen drawing, some of the principles on which it is based, a hint as to its history and to certain uses to which it is put. It is enough to show the importance of the subject, to suggest with what seriousness it should be regarded. If, however, that which has been written here makes the subject seem too deep and complex, we can offer a word of encouragement to the student. This is that pen technique itself, being so highly conventional, is more or less a matter of tricks. Just as some learn to write well with ease, so some, already grounded in a knowledge of drawing, (for as we have previously said there are no easy tricks about that), learn these tricks of technique and thereby get the knack of pen work almost without trying. This is of course exceptional. It must be admitted that others need much practice to gain the same results; while some with the best of effort never do acquire more than an ordinary technique. Even famous workers in other mediums have sometimes failed miserably with the pen, much to their own discouragement, undoubtedly, but to the encouragement of lesser artists who have also found the road a difficult one.



# SHOP DRAWINGS

## THE BUILDER'S DRAFTSMAN AND MILLWORK DETAILS

By W. E. Schlimgen

EDITOR'S NOTE:—In addition to the detail drawings which should be made by the architect to fully elucidate or amplify the contract drawings, the builder and manufacturer must make shop drawings which constitute a transposition of the architectural drawings into terms and indications of shop practice. Contractors' and subcontractors' shop drawings constitute the intended interpretation of the requirements of the architectural drawings and of the specifications and should agree with the specifications as to material and with the architect's drawings as to design and arrangement and the indicated space conditions. In this and subsequent issues will be shown selections from the shop drawings which have been prepared by the draftsmen in the builder's, subcontractor's and building material manufacturer's drafting rooms. It will be noted that oftentimes the architectural drawings only indicate a typical condition which is to be amplified or arranged to suit varying conditions or locations. The shop details in these cases often constitute additional architectural drawings even if prepared by the building contractor, millwork factory, marble, stone, architectural terra cotta, steel, or cabinet work draftsmen.

IN COLONIAL DAYS many architects in this country were also builders and most of our domestic architecture was both designed and constructed by them. One of the best known of these architects was Asher Benjamin, who published a number of works on architecture and building problems and who styled himself "Architect and Carpenter."

In modern practice it is customary to employ a builder for the execution of the architect's designs and his work is usually done under the architect's direction and supervision. To obtain the best results it is highly desirable that the builder work in harmony with the architect and in some measure be allied to the architect's organization during the progress of the work. The architect prepares and furnishes the plans, specifications, and details which cover the design. There are many other drawings required however, so a draftsman is an important member of a builder's organization. In the practice of the writer the builder's drawings are termed "Shop Drawings" to distinguish them from the architect's drawings.

The services of a draftsman are undoubtedly more necessary to the builder of country houses than to most other builders. This draftsman should have some architectural training, preferably as a draftsman in an architect's office, so that he will know how to interpret the architect's design correctly. His duties consist largely of the preparation of details and lists of millwork and other materials. He should have a knowledge of good construction, be able to make framing plans, and compute simple stresses for both steel and timber. Advanced engineering knowledge is not required, since structural steel, in the sense that it is used in large fireproof buildings, is seldom used in country houses.

Country houses usually are at some distance from the builder's office and are, therefore, not visited as frequently as if they were more easily reached, so the superintendent on the job must be furnished with more information in documentary form than would otherwise be necessary. This information should, as far as possible, answer any questions

which might arise in connection with the construction, and should also clear up all points which might be somewhat vague on the architect's drawings. In order to permit the superintendent to attend to other pressing and important matters he should be relieved from the necessity of solving problems of construction and so on. These can be solved in the builder's office where a record can be kept and the architect consulted if necessary.

Architect's details should, and usually do, give enough information such as profiles and so on to illustrate the design, but they are not always in such shape that they can be used by the mechanic either in the shop or at the building without further elucidation by additions and modifications. An architect's drawing may, for example, be a detail of a porch made on a comparatively small sheet to conserve paper. A profile would be given through the cornice at one point; the balustrade above the cornice might appear on another part of the sheet; the columns, railings, fascia, connection to the house, etc., would be shown on still other parts of the sheet; but none of them would be connected in such a manner as to be intelligible to the average mechanic. The builder's draftsman, in this case, redraws the porch detail showing the several members in their proper relation to each other. In cases where the architect's detail can be used, the construction, dimensions, and so on, are usually placed on the architect's drawing.

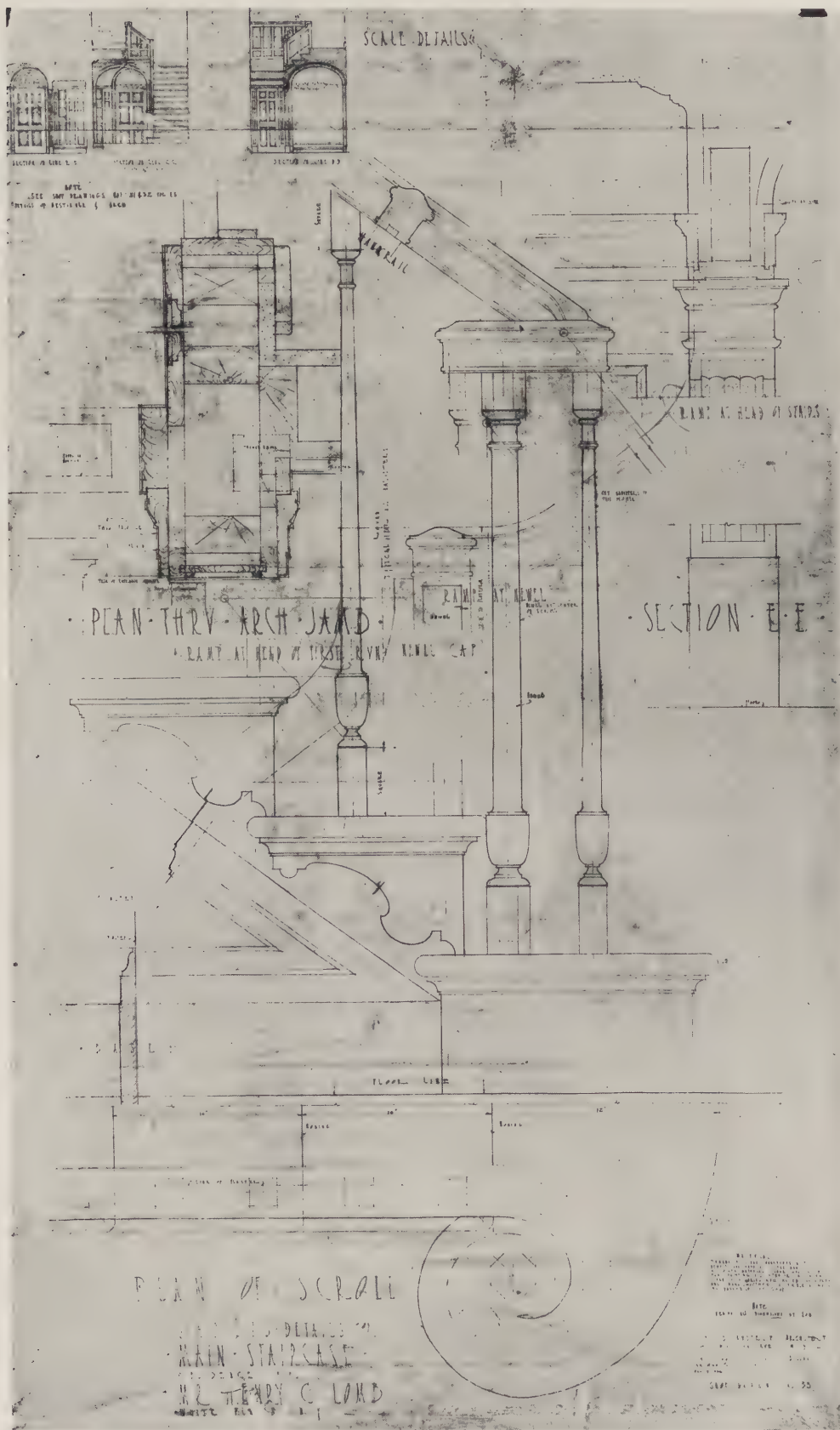
It is neither necessary nor desirable that the architect's details show construction, the building up of moulded parts, etc., unless there be a special reason for doing this, but all outlines and profiles should be given.

The preparation of drawings for millwork is the most important part of the draftsman's work for the country house builder. The accompanying illustrations are details made in connection with a country house of wood frame construction built near White Plains, N. Y. These drawings were selected at random as being typical of the work done.

Shop Drawing No. 15 is a Full Size Detail of a



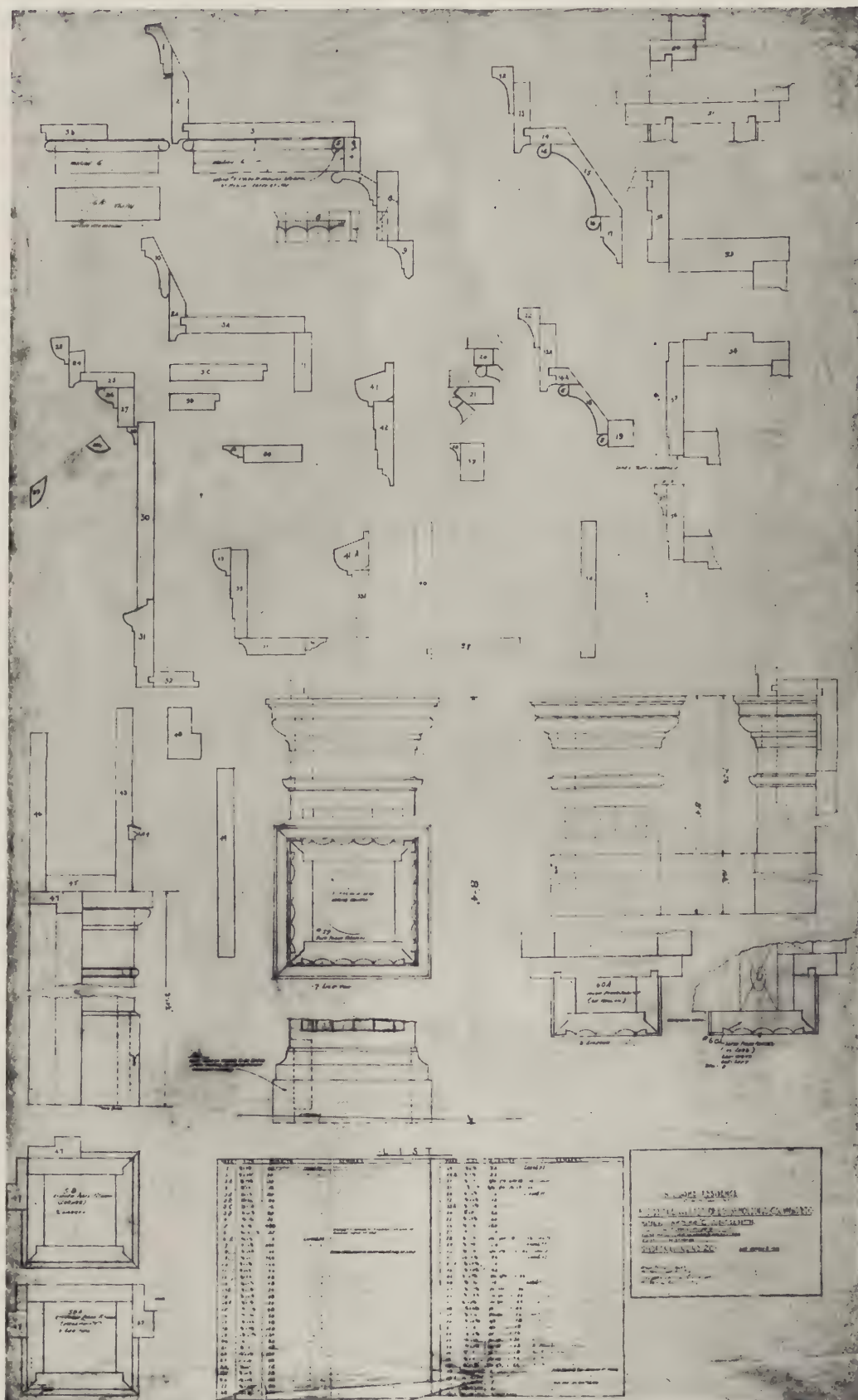
## PENCIL POINTS



SHOP DRAWING NO. 33, STAIRCASE DETAILS  
*Residence of Henry C. Lomb, Alfred Busselle, Architect*



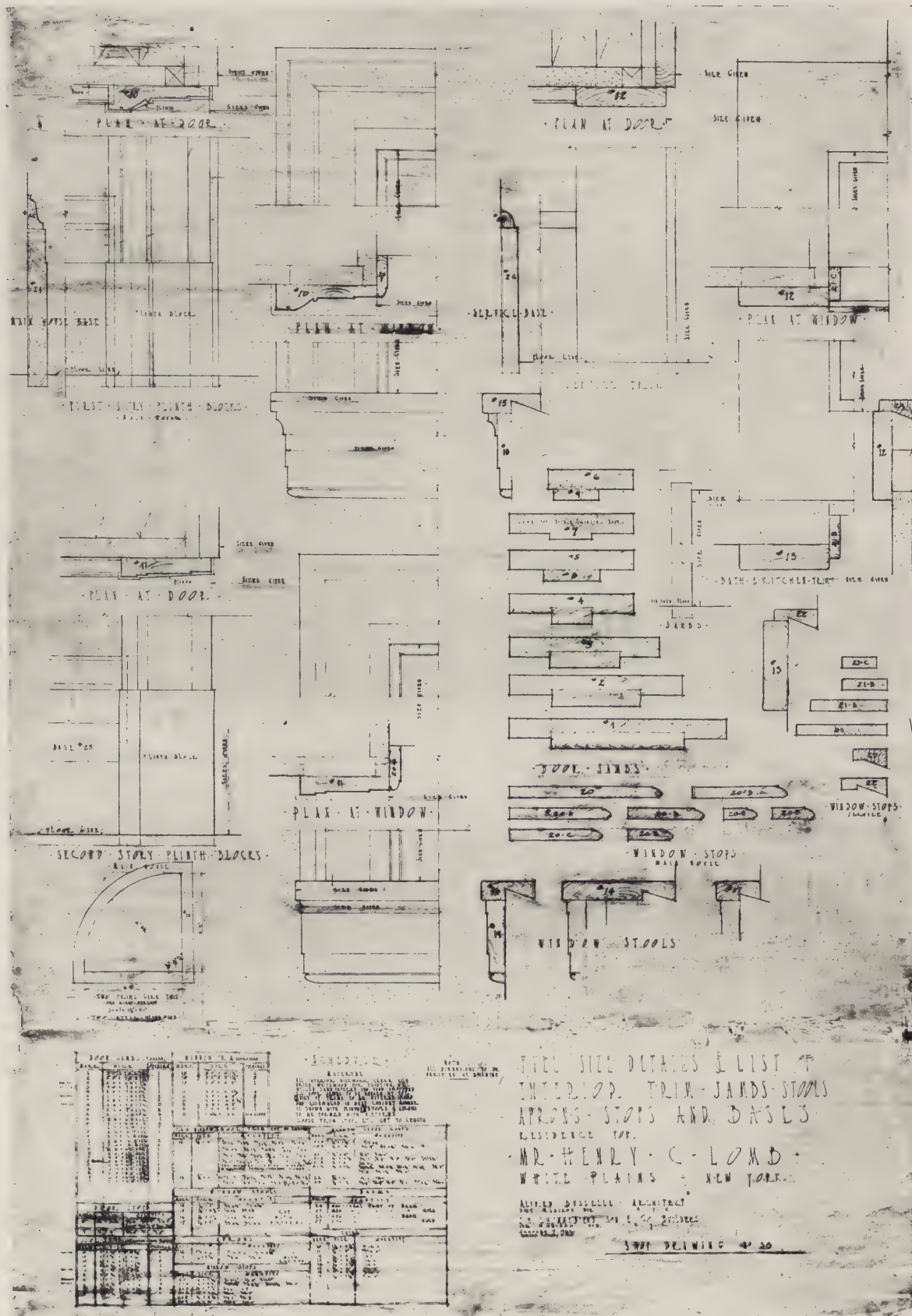
# SHOP DRAWINGS



SHOP DRAWING NO. 20, TRIM AND COLUMN DETAILS  
*Residence of Henry C. Lomb, Alfred Busselle, Architect*



# PENCIL POINTS



SHOP DRAWING NO. 38, INTERIOR TRIM DETAILS AND LIST OF MATERIAL  
Residence of Henry C. Lomb, Alfred Busselle, Architect



## SHOP DRAWINGS

porch over which is a sleeping porch. This drawing was made for use at the job and similar drawings were made in the mouldings and other members correspond to these numbers on Shop Drawing No. 20, which is a detail and list of exterior millwork as ordered from the mill.

Shop Drawing No. 33 is a detail of the main staircase, which was made and installed by a stair builder including all panel work surrounding it.

Shop Drawing No. 36 is a detail of kitchen and pantry dressers, used for constructing the work at the mill as well as for erection at the job.

Shop Drawings No. 38 and No. 44 were used for ordering interior trim and doors respectively.

Shop Drawing No. 39 is a detail of the dining room interior panel work which was manufactured and erected by a cabinet maker.

Copies of all shop drawings as well as architect's drawings are kept on file at the job so the superintendent may know what materials are ordered, where they are to be placed, and how to prepare the building properly to receive them.

The practice of making shop drawings and lists in the office of the builder is to be preferred to the sending of the architect's plans and details to the mill and permitting the millworker to prepare such shop drawings. By the former method the builder determines in advance what the detail and construction shall be and can proceed with his work without waiting for information from the mill.

The builder, in addition to getting just what he wants, can usually purchase his millwork at a closer price because the millman's estimate will be

based on fixed quantities. He also saves much of the cost of preparing shop drawings and mill lists.

While on this subject of millwork it might be well to call attention to the recent changes made in the thickness of all classes of soft wood lumber,

establishing a new standard known as the "American Lumber Standard".

These standards are acceptable under the provisions of 91% of the building codes and are endorsed by the American Institute of Architects, American Railway Engineering Association; American Society for Testing Materials; Associated General Contractors; Association of Purchasing Agents; Natural Retail Lumber Dealers Association; National American Wholesale Lumber Association, and all the principal associations of lumber manufacturers.

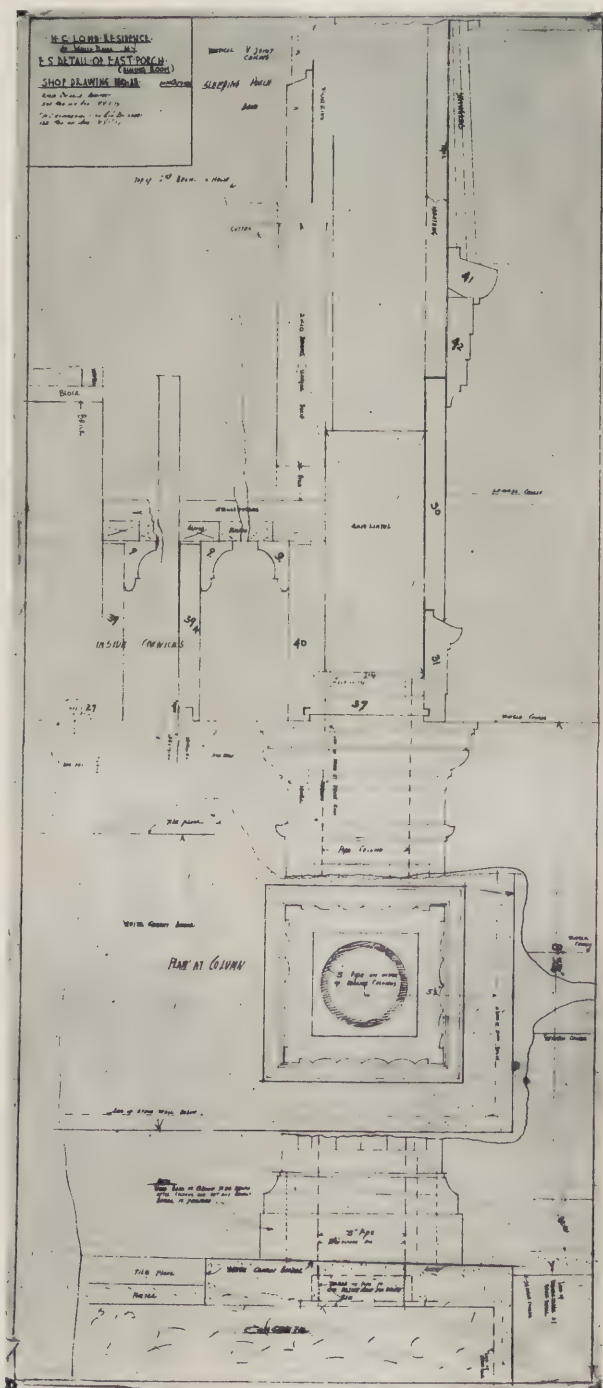
### EXAMPLES:

A nominal one inch board which formerly became  $\frac{7}{8}$ " thick when dressed is now only  $\frac{25}{32}$ " thick.

In framing lumber a nominal 2" x 4" becomes  $1\frac{5}{8}$ " x  $3\frac{5}{8}$ " when dressed.

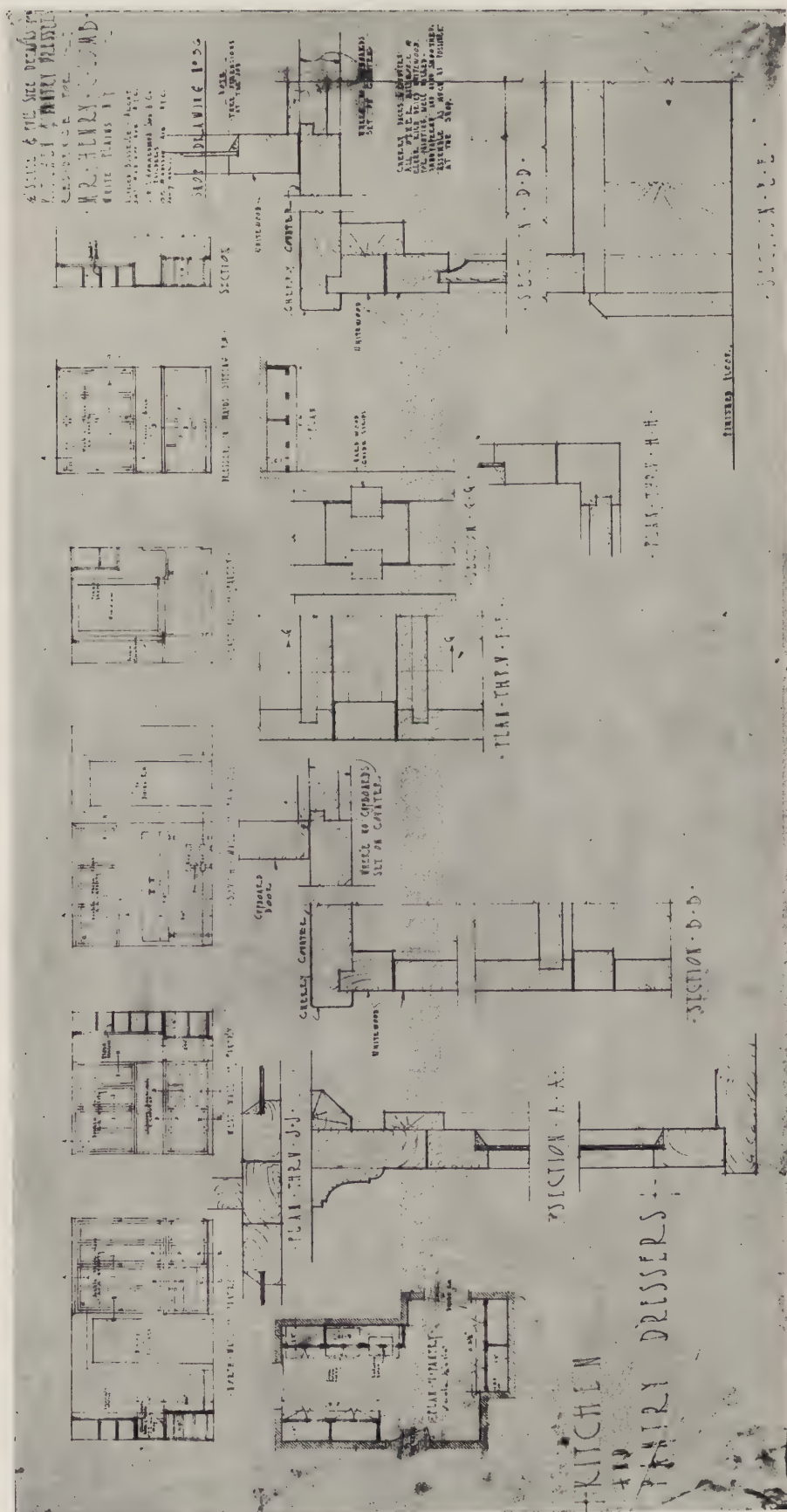
Much of our lumber stock comes from the Pacific Coast and the Inland Empire, and nearly all of it is dressed before shipment. This fact should be taken into consideration by draftsmen in architects' offices as well as in builders' offices when preparing details for millwork. Information as to the various dimensions of dressed soft wood lumber, including structural

timbers and factory lumber, can be obtained from any of the lumber trade publications or any of the associations of lumber manufacturers, and draftsmen not thoroughly familiar with the new "American Lumber Standard" should verify all sizes.



SHOP DRAWING NO. 15, PORCH DETAIL





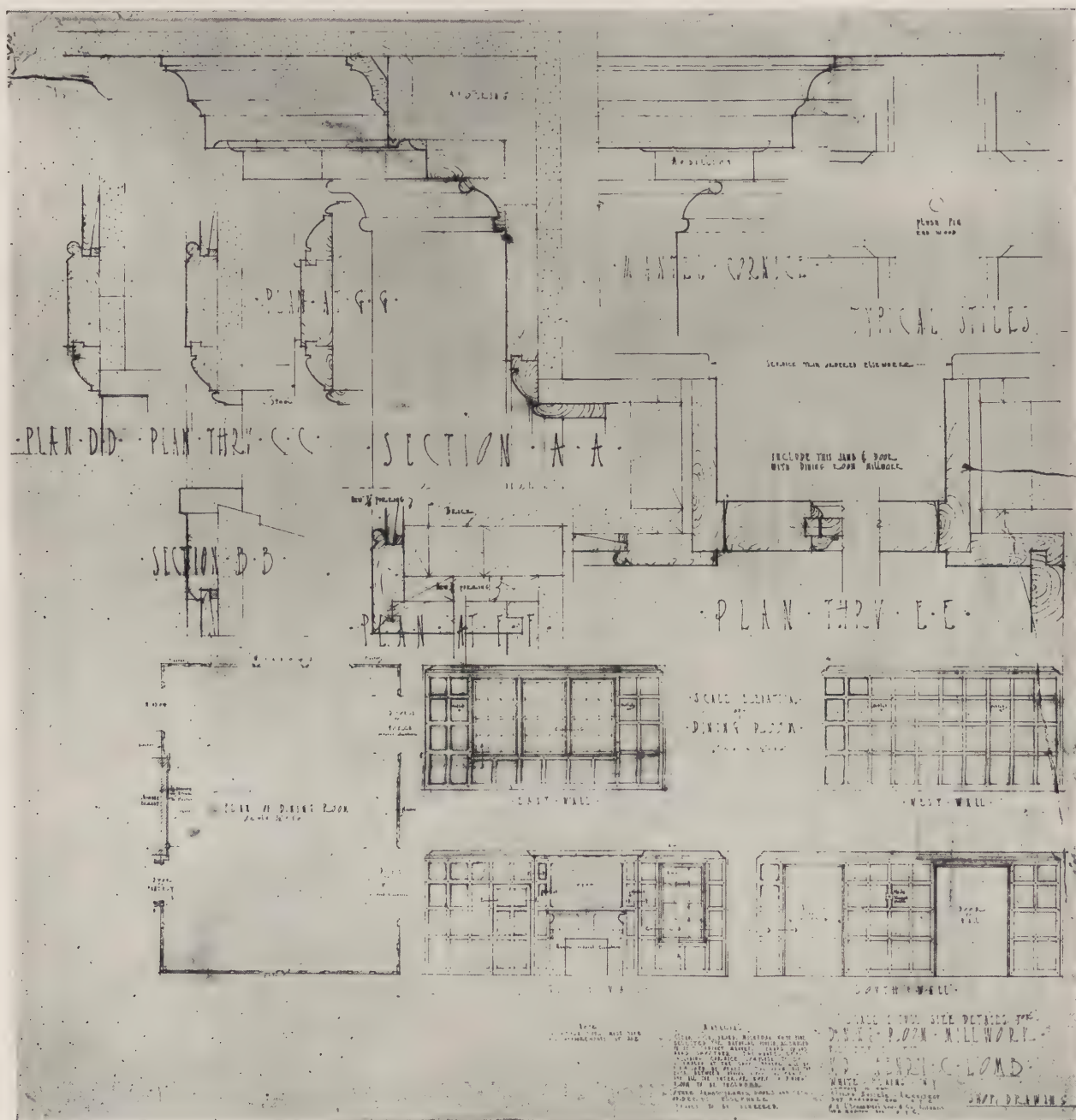
SHOP DRAWING NO. 36, DETAILS OF KITCHEN AND PANTRY DRESSERS  
 Residence of Henry C. Lomb, Alfred Busselle, Architect







# PENCIL POINTS



SHOP DRAWING NO. 39, DINING ROOM MILLWORK DETAILS  
*Residence of Henry C. Lomb, Alfred Busselle, Architect*



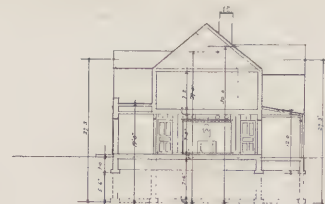
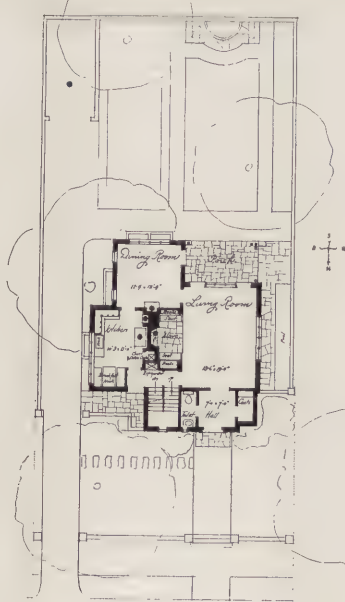
# SMALL HOUSE COMPETITION



A	28' x 21' x 30'	17640
B	14' x 14' x 19'	1335
C	14' x 14' x 24'	1335
D	14' x 14' x 24'	1335
E	14' x 14' x 12'	672
F	14' x 14' x 24'	3052
Chimney	2' x 3' x 3'	39
Fireplace	2' x 2' x 3'	154
Stairs	2' x 2' x 3'	127
		27227
Deduct for Unoccupied part,		
14' x 14' x 14' + 14' x 14' x 14' x 14'		2227
TOTAL		25000



- List of Gas Appliances*
- Gas Range
  - Water Heater
  - Radiator
  - Gasoline Heater
  - Radiator
  - Gasoline Heater
  - Radiator
  - Gasoline Heater
  - Radiator
  - Gasoline Heater
  - Radiator
  - Gasoline Heater
  - Radiator
  - Gasoline Heater
  - Radiator



*A Drawing for  
the American Gas  
Association's Small  
House Competition*

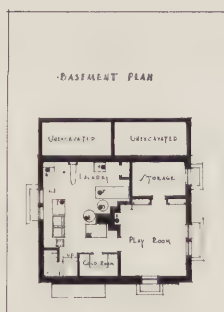
FIRST PRIZE DESIGN, RUSSELL S. SIMPSON, CLEVELAND, OHIO  
American Gas Association Small House Competition



# PENCIL POINTS

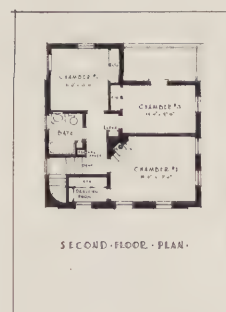
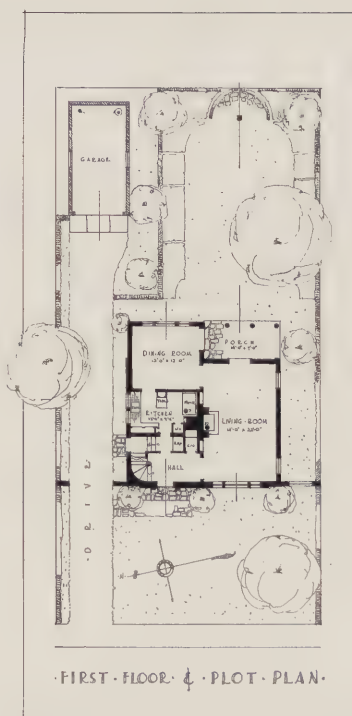


· PERSPECTIVE · VIEW



· GAS · FIXTURES

1 BOILER.	BASMENT
2 GARAGE DESTROYER.	"
3 WATER HEATER.	"
4 LAUNDRY STOVE.	"
5 CLOTHES DRYER.	"
6 TUBS.	"
7 WASHING MACHINE.	"
8 FIRE PLACE.	"
9 STOVE.	KITCHEN
10 FIRE PLACE.	LIVING RM.
11 FIRE PLACE.	BED RM.
12 HEATER.	GARAGE.
13 WATER HEATER.	GARAGE



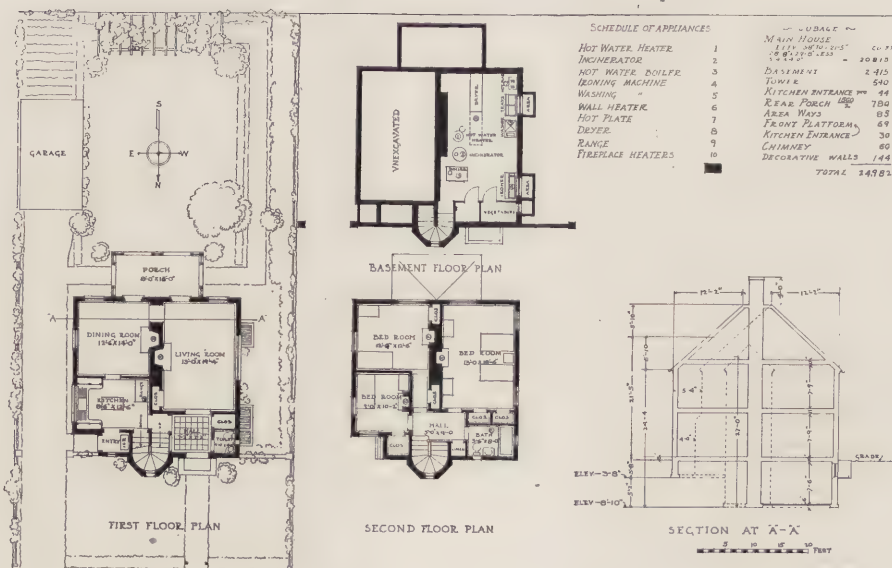
· SECTION ·

CUBAGE.	
MAIN HOUSE.	21,874 CF.
DINING ROOM WING.	2,445 "
PORCH.	610 "
WALLS AT FRONT.	171 "
CHIMNEY.	45 "
TOTAL.	24,085 CF.

SECOND PRIZE DESIGN, F. S. HOPKINS AND P. C. BOHANON, CLEVELAND, OHIO  
*American Gas Association Small House Competition*



# SMALL HOUSE COMPETITION



AMERICAN GAS ASSOCIATION SMALL HOUSE COMPETITION

THIRD PRIZE DESIGN, ANTONIO DI NARDO, CLEVELAND, OHIO  
*American Gas Association Small House Competition*

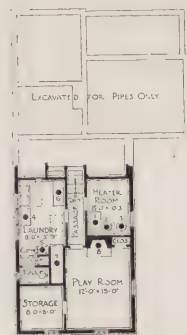


# PENCIL POINTS



THE HOUSE SHOULD FACE  
THE WEST OR THE NORTHWEST

SCALE OF FEET  
FOR PLANS AND SECTION



## GAS APPLIANCES

NUMBERS REFER TO LOCATION  
ON PLANS

1. HOUSE HEATER.
2. AUTOMATIC STORAGE  
WATER HEATER.
3. GARBAGE INCINERATOR.
4. WASHING MACHINE
5. LAUNDRY STOVE
6. IRONING MACHINE
7. CLOTHES DRIER.
8. FIREPLACE HEATER.
9. FIREPLACE HEATER.
10. KITCHEN RANGE

## CALCULATION OF CUBAGE

A	20'5" x 29' x 20	12,620
B	20'5" x 7' x 14'75"	2,250
C	13'33" x 23'5" x 13'75"	4,310
D	18'75" x 15' x 16'25"	4,580
E	8'25" x 18'5" x 13'75"	1,050
F	10' x 10' x 0'5"	50
TOTAL		24,860



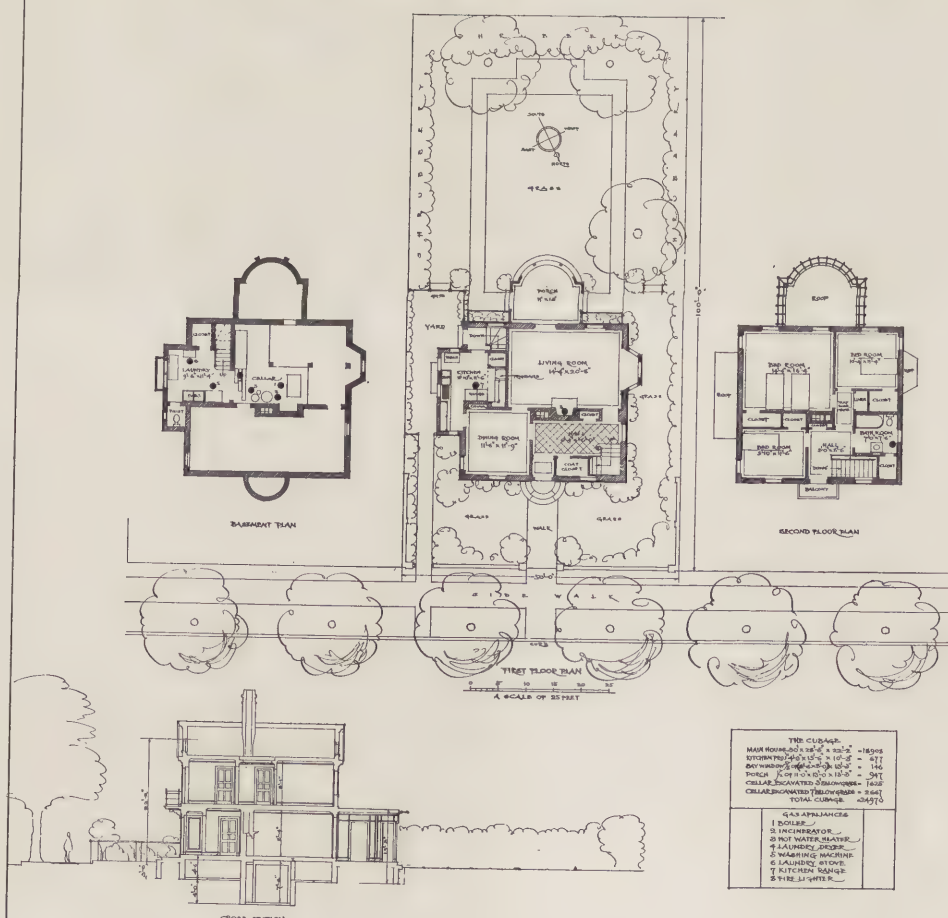
AMERICAN GAS ASSOCIATION SMALL HOUSE COMPETITION

FOURTH PRIZE DESIGN, HAROLD A. RICH, AUBURNDALE, MASS.

*American Gas Association Small House Competition*



# SMALL HOUSE COMPETITION



## AMERICAN GAS ASSOCIATION SMALL HOUSE COMPETITION

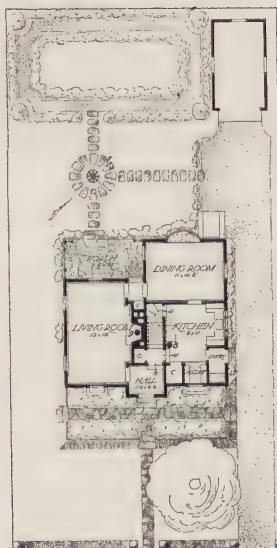
FIFTH PRIZE DESIGN, ALFRED COOKMAN CASS, NEW YORK CITY  
*American Gas Association Small House Competition*



# PENCIL POINTS



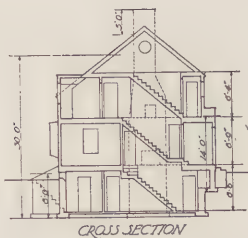
BASEMENT FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



CROSS SECTION

A DESIGN SUBMITTED FOR THE  
SMALL HOUSE COMPETITION  
CONDUCTED BY



CUBAGE	
BODY OF HOUSE	27' 30" x 30' x 10' 00" C.F.
ENTRANCE BAY	3' 75" x 14' = 210 "
REAR PORCH	3' 50" x 8' = 300 "
REAR WINDOW	15' 4" x 25' 2" = 40 "
REAR WINDOW	6' 5" x 5' 6" = 30 "
ENTRANCE PORCH	3' 5" x 2' 5" = 42 "
CHIMNEY TOP	4' 14" x 3' = 00 "
TOTAL	2492 "

KEY TO GAS APPLIANCE	
NO. 1	IRONING MACHINE
2	WASHING
3	WASHING MACHINE
4	DRYER
5	GASOLINE DISTRIBUTOR
6	WATER HEATER
7	WATER HEATER
8	COOKING RANGE
9	FIREPLACE HEATER

SIXTH PRIZE DESIGN, GEORGE C. CROCKETT, PELHAM, N. Y.  
American Gas Association Small House Competition



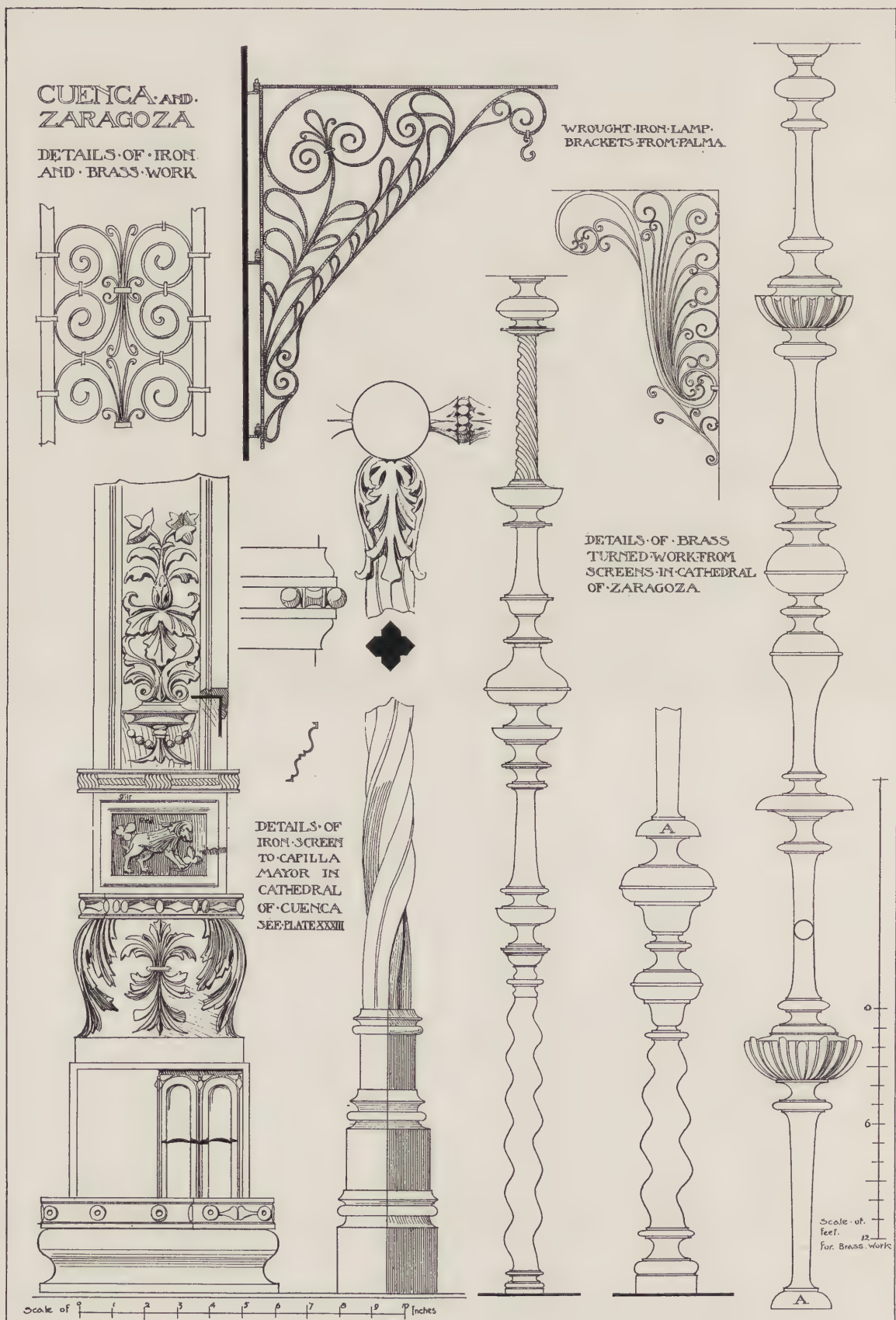
PLATE XXVI

VOLUME VII

NUMBER 8

*Details of ironwork from a screen in the Cathedral of Cuenca and some brass turned work from the Cathedral of Zaragoza.*





"RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN"

A PLATE FROM THE WORK BY ANDREW N. PRENTICE



PLATE XXVII

VOLUME VII

NUMBER 8

*This plate shows one of a series of drawings made by Mr. Price of the Miami-Biltmore, completed during the past winter at Coral Gables, Miami, Florida.*



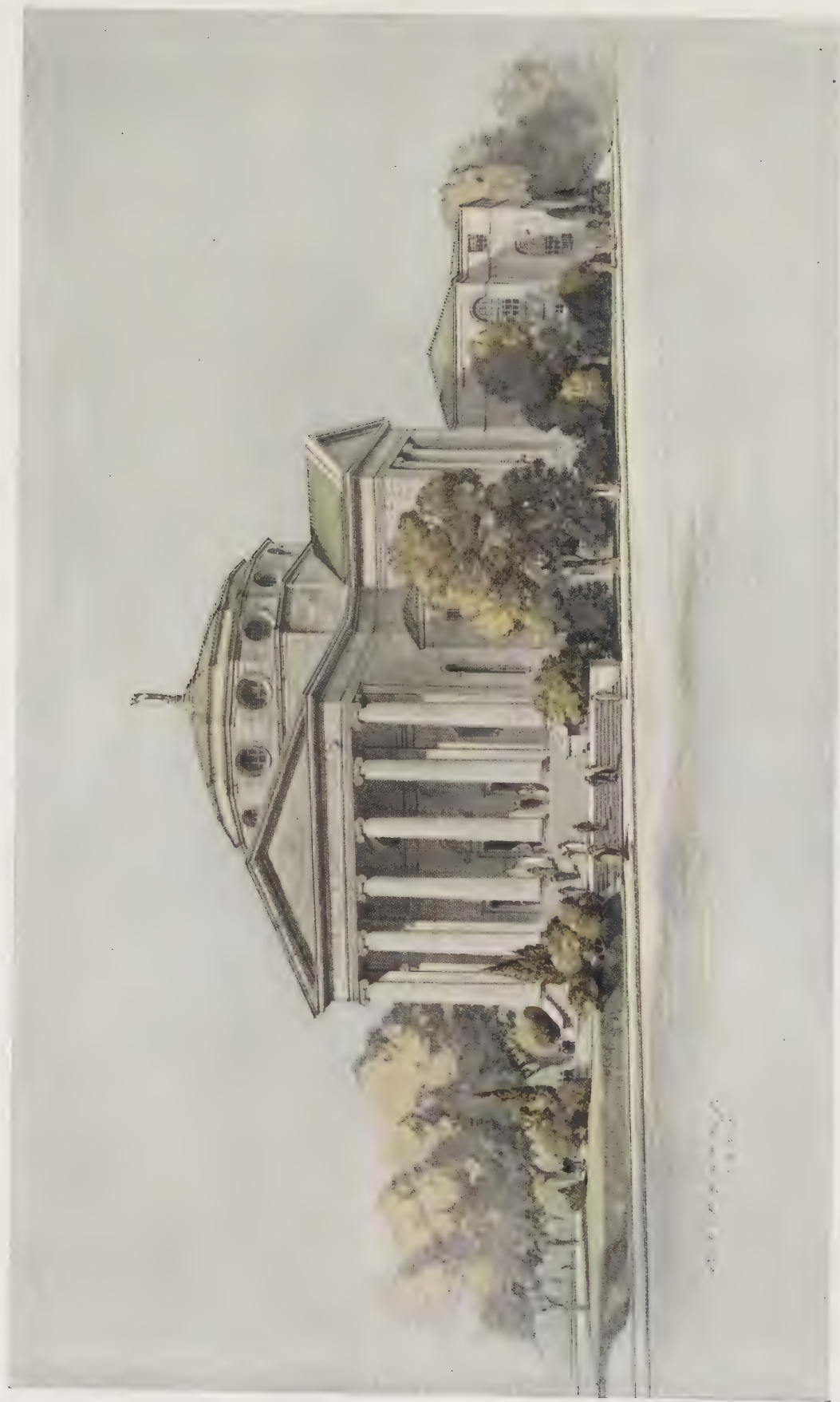


DRAWING BY CHESTER B. PRICE  
DINING ROOM IN COUNTRY CLUB, THE MIAMI-BILTMORE, SCHULTZE & WEAVER, ARCHITECTS



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





RENDERING IN WATER COLOR AND COLORED PENCIL BY OTTO R. EGGERS

*Size of Original 28½" x 17"*

*University Baptist Church, Baltimore, Maryland*

*John Russell Pope, Architect*





RENDERING BY BIRCH BURDETTE LONG OF THE PANAMA CALIFORNIA EXPOSITION, SAN DIEGO, CAL.

*Size of Original 83" x 47 3/8"*

*Cram, Goodhue & Ferguson, Architects. Bertram G. Goodhue, Advisor & Consulting Architect.*

*The Bridge Designed by Frank P. Allen, Jr.*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





PENCIL SKETCH BY SAMUEL V. CHAMBERLAIN  
VIELLE MAISON, RUE ST. ETIENNE DU MONT, PARIS



PLATE XXVIII

VOLUME VII

NUMBER 8

*This lithograph by Samuel V. Chamberlain is one of a set of twenty views of Old Paris. The artist has here chosen to depict an old house next to the church of St. Etienne du Mont. It is interesting to note that he worked from almost the same spot where F. Hopkinson Smith made the charcoal sketch reproduced on Plate XXI of the June issue of Pencil Points. Size of original 11" x 17".*





GRANADA  
Street on the Darro

*A. Thornton Bishop*

PENCIL SKETCH BY A. THORNTON BISHOP  
STREET ON THE DARRO, GRANADA



PLATE XXIX

VOLUME VII

NUMBER 8

*A. Thornton Bishop, samples of whose excellent work in pencil are shown in the sketch reproduced here and in this month's cover drawing is a commercial artist and renderer. His architectural training is clearly apparent in his method of handling such subjects as that of this plate.*





PLAN OF WINNING DESIGN FOR A NATATORIUM BY CARL E. LANDEFELD  
COMPETITION FOR THE NINETEENTH PARIS PRIZE





ELEVATION



SECTION

WINNING DESIGN FOR A NATATORIUM BY CARL E. LANDEFELD, COMPETITION FOR THE 19TH PARIS PRIZE





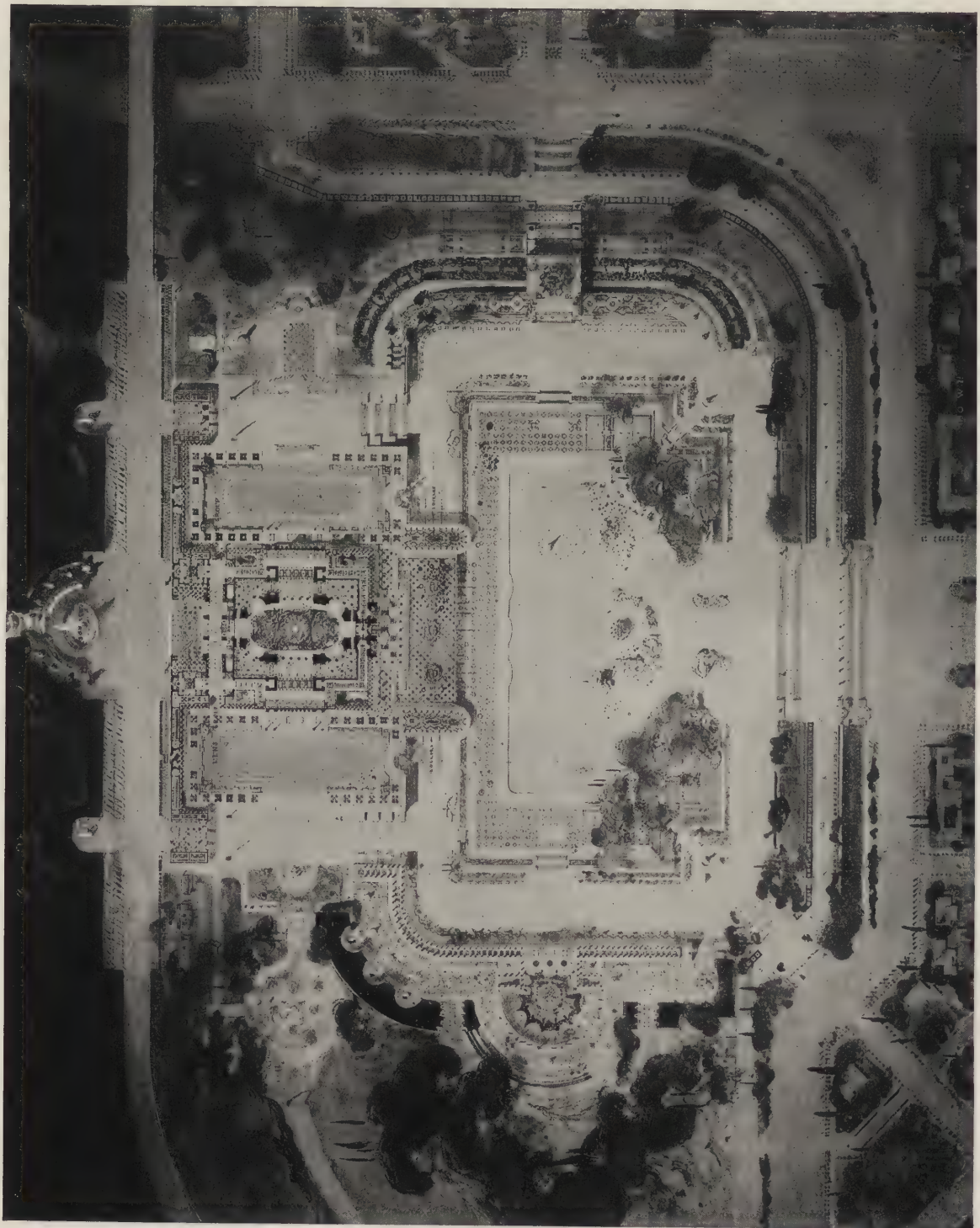
ELEVATION



SECTION

DESIGN FOR A NATATORIUM BY DONALD S. NELSON, PLACED SECOND, COMPETITION FOR THE 19TH PARIS PRIZE





PLAN OF DESIGN FOR A NATATORIUM BY D. S. NELSON, PLACED SECOND,  
COMPETITION FOR THE NINETEENTH PARIS PRIZE





PLAN OF DESIGN FOR A NATATORIUM BY I. W. SILVERMAN, PLACED THIRD  
COMPETITION FOR THE NINETEENTH PARIS PRIZE





ELEVATION



SECTION

DESIGN FOR A NATATORIUM BY I. W. SILVERMAN, PLACED THIRD, COMPETITION FOR THE 19TH PARIS PRIZE





# W H I T T L I N G S

## PRIZES AWARDED IN SMALL HOUSE COMPETITION

THE AMERICAN GAS ASSOCIATION has announced the winners in its \$2,500 prize competition for a six room suburban house. The first three prizes were awarded to architects of Cleveland, Ohio, as follows: 1st prize, \$1,000, Russell S. Simpson; 2nd prize, \$500, F. S. Hopkins and P. C. Bohanon; 3rd prize, \$250, Antonio di Nardo. The 4th prize, \$250, was awarded to Harold A. Rich of Auburndale, Mass. The 5th to the 9th prizes inclusive, consisting of \$100 each, were awarded to Alfred Cookman Cass, New York; George C. Crockett, Pelham, New York; Walter J. Thies, Carl H. Martin, and Erskine A. Hart, Dayton, Ohio; Otho McCrackin, Hutchinson, Kansas; Charles W. Cleary and James N. Holden, Boston, Mass.

Honorable mention was awarded the following: Carl C. Tallman, Auburn, N. Y.; Russell E. Yates, Detroit, Michigan; R. Schofield Morris, Hamilton, Ontario; Ernest Irving Freese, Los Angeles, Cal.; Frank C. Burke, Watertown, N. Y.

The competition was open to all architects, draftsmen, and students in architectural schools in the United States and Canada. Judges of the competition were Aymar Embury II, and Dwight James Baum, of the American Institute of Architects, and Alexander Forward, secretary-manager of the American Gas Association. William Adams Delano was the architectural advisor.

The first six prize winning designs are published on pages 481 through 486 of this issue.

## NEW YORK SKETCH CLUB REVIVED

THERE MAY BE FEW WHO remember the Sketch Club of New York of thirty years ago, how vital it was to both the designer and draftsman. Its exhibits gave evidence of the fraternal, jolly companionship; the spirited studies exhaled the enthusiasm of those playing while they worked and working while they played. In reopening the Sketch Club, the opportunity of instruction in "pencil painting" is offered to all draftsmen, designers, renderers and students of architecture.

The lead pencil is perhaps the one most important tool of the architect, and in making studies, sketches and rapid memoranda it is his invariable resort and constant companion. An architect who cannot use his pencil with facility and decision is at great disadvantage. It is the invaluable process of representing a building as a work of art by means of another work of art.

Mr. Ernest W. Watson, for many years an instructor at Pratt Institute and recognized as one of the leading exponents of the art of pencil sketching, will conduct the atelier of the Sketch Club in the Club rooms at the Art Centre, 65 East 56th Street, one evening a week. The class will open late in September and continue through the winter and spring. There are very few architectural draftsmen and renderers who cannot study to advantage the artistic stenography, the power and simplicity that lies dormant in their most common instrument, their pencil.

The Sketch Club and Atelier are conducted under the auspices of the Pratt Art Alumni: the proceeds of the class maintain an annual European Scholarship. At the close of the season an exhibit of the class work will be held in the Club rooms at the Art Centre. Messrs. D. Everett Waid, Thomas B. Hastings, and Otto R. Eggers are members of the Advisory Council.

So great has been the interest in this opportunity to acquire the technic of expressing with one's own individuality the studies of the great masters, the artistic qualities of their own designs as they want their clients to see them that many have applied before any announcement of the class could be made. The facilities for personal instruction are limited and all who desire to attend the Club and Atelier for the coming season are urged to correspond immediately with A. Thornton Bishop, president of the Pratt Art Alumni, 105 West 40th Street, New York City.

## SAN FRANCISCO ARCHITECTURAL CLUB

THE SAN FRANCISCO ARCHITECTURAL CLUB wishes to announce the huge success of the Thursday luncheons which are held weekly in the club's banquet room.

Some 45 members have been present at each of the four luncheons held to date and all attest to the excellence of the cuisine. These noon gatherings are tremendously popular with the boys and each Thursday is looked forward to with eager anticipation.

The success of the mid-day meal must be attributed to the endeavors of C. Trudell, "our Secretary," and his assistants. Also to his good judgment in securing the services of a dietitian of international repute—a former chef of Monte Carlo. The generosity of Ed Counter of Dietrich-Post Co. has also been a mighty influence towards making the dinners the good time that they are. Ed conducts a free raffle at each luncheon which culminates in the distribution of valuable drawing instruments.

Geo. Travis is with us again, having completed his studies at Harvard. He is once more "over the boards" at Bakewell & Brown's, back with his old gang.

The club as a whole regrets the absence of Stanton Willard, who has ascended to new heights in Los Angeles, where he is managing the office of Walker & Eisen. Good luck Tubby!

The membership drive is still "driving" draftsmen and members of the profession into this organization.

Massier H. Anderson has plans under way for a grand gathering of the Atelier. An elaborate dinner and entertainment par excellence will mark the occasion.

The semi-annual election at the July meeting resulted in the selection of J. H. Devitt for treasurer, Harry Langly and Ira Springer for Directors. James Magee was appointed chairman of the Minstrel Show Committee with Ira Springer and C. J. Sly as his aides. The Minstrel Show will be held in October to commemorate the Club's 25th year of existence.

J. H. DEVITT,  
*Publicity Manager.*



OLD CHURCH DOOR OF CHAPEL,  
"THE KING'S SCHOOL", PARRAMATTA, AUSTRALIA  
*Reproduced From a Snapshot by Louis Brackenreg.*



## PENCIL POINTS



FRANK SCHWARZ

FRANK SCHWARZ HAS BEEN awarded one of the John Simon Guggenheim Memorial Fellowships for 1926-27 and has sailed to study methods in painting and in decoration in mediæval times, the 13th, 14th and 15th centuries and some things in the work of the modern artists. Mr. Schwarz was formerly a fellow at the American Academy in Rome and has done some very fine paintings. One of his most interesting works, a screen, was published in the April, 1925, issue of PENCIL POINTS. He will do some creative work in mural decoration while he is in Europe.

The Fellowship provides a stipend of \$2,500 for a year of twelve months abroad.

### TWO COMPETITIONS IN DESIGN FOR TRAFFIC SIGNAL TOWERS AND OTHER STREET FIXTURES

TWO COMPETITIONS IN DESIGN based on the widely recognized need for better design in street fixtures are announced.

The first competition calls for designs for traffic signal towers and standards and street lighting standards. The second competition is for filling station designs.

In neither case is the electrical or mechanical equipment of the structure a part of the competition.

These competitions are being conducted by the Biscayne Boulevard Association, Miami, Florida. The Association has appointed Messrs. Bennett, Parsons and Frost, Consulting Architects, Chicago, to serve as professional advisers for the competitions.

The purpose is both to secure designs appropriate for Biscayne Boulevard and to stimulate interest in the designing of better structures for these purposes than the un-studied devices now in general use.

The street for which the designs are desired is a level 100 foot street extending from the center of Miami for three and one-half miles to Northeast 55th Street, where it becomes the Federal Highway which, combined with the Dixie Highway, extends 360 miles to Jacksonville and beyond to the Northern States.

The first mile of the street was formerly Bay Shore Drive, recently widened and improved. The remaining 2½ miles is a new street involving cutting through fourteen improved city blocks and widening a narrow street (formerly Northeast Third Avenue) through nineteen improved blocks.

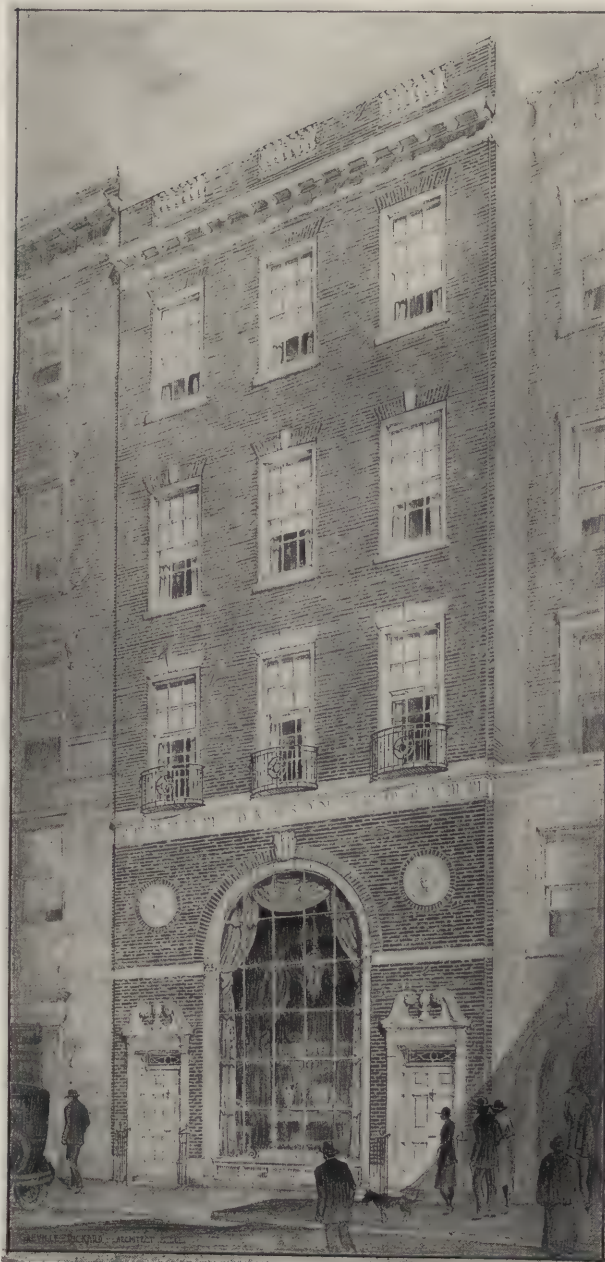
This new section will be open to traffic about December 1st, 1926. The competitions close October 1st.

The Biscayne Boulevard Association agrees to award to the winners within 5 days after the judgment of the jury \$4,650.00 in prizes as follows:

Competition No. 1—1st Prize \$1,000.00; 2nd Prize \$600.00; 3rd Prize \$400.00; 4th Prize \$200.00; 6 Mentions, each \$75.00.

Competition No. 2—1st Prize \$750.00; 2nd Prize \$400.00; 3rd Prize \$250.00; 4th Prize \$150.00; 6 Mentions, each \$75.00.

Program of the Competitions may be obtained by addressing Harry T. Frost, in care of Biscayne Boulevard Association, Columbus Hotel, Biscayne Boulevard, Miami, Florida. Or—*American Architect*, 239 West 39th Street, New York. Or—Bennett, Parsons and Frost, 80 East Jackson Boulevard, Chicago.



PENCIL RENDERING BY GREVILLE RICKARD  
*Altered Front for Antique Shop*



## PENCIL POINTS



CARL E. LANDEFELD

CARL E. LANDEFELD, the winner of the 19th Paris Prize, was born at Erie, Pennsylvania, where he received his early education. He entered Carnegie Institute of Technology in 1919 and was graduated from there in 1923.

He was logist in the Paris Prize last year and after completing the projet was employed in the office of Raymond M. Hood.

Mr. Landefeld feels that he owes a great deal to the men under whom he studied, including, Professor Camile Grapin, Henry Hornbostle and Harry Sternfeld at Carnegie Tech and later, in New York, Lloyd Morgan and Otto Faelton of Yale University, his patron for the final projet.

Mr. Landefeld will take up his studies abroad early in September.

### AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary, from Gorham P. Stevens, Director, we quote the following:

"At this moment only seven Fellows are in residence—Meyer and Hancock in sculpture, Finley in painting, Elwell in music, Fraser in architecture, and the two women classicists; all the others are traveling. Meyer is hard at work upon his third year's group. Hancock has his first year's figure well under way. Finley has returned from Florence with his Penturricchio copy under his arm. Fraser is finishing his first year's classical restoration, and the classicists are working on their theses. Deam, third-year Fellow in architecture, has finished entirely and is now in Germany, which he finds interesting in many ways. Bradford's eyes have been troubling him, and he is now taking a rest; his big composition is well advanced.

"Newton has completed the general plan of his third year's work, the Villa Magliana near Rome, and is now in Siena for the Pallio. Mr. W. S. Richardson was of especial assistance to Newton in the designing of the entire layout. Newton left with us about 600 films, all taken by himself, of Italian villas for printing for our collection of landscape photographs.

"Of the staff, Professor Fairbanks has returned on private business to America for a few weeks. The Moreys and Ullmans are in residence. The Lamonds, Van Burens and Mr. W. S. Richardson are off for the summer. It may interest you to learn that Mr. Richardson bought a number of old Roman inscriptions to decorate his villa and that Prof. Van

Buren found four unpublished ones among them, which he will shortly make known to the world.

"The President and the Vice President of the Academy spent a number of days in studying conditions at the Academy, but both have now gone north.

"Professor Showerman is due today, and his Summer School of seventy-four opens next Monday. Professor Shepherd Stevens, of the Yale School of Architecture, has registered in the Summer School and with the permission of the Trustees is now in residence at the Main Building.

"Czechoslovakia, Bulgaria and Egypt are planning Academies in Rome, to be located in the valley Giulia, near the present British School and the big modern art gallery. The city of Rome rents lots of land to all these countries for one lire a year, and does not tax them, which are big inducements for establishing Academies in Rome."

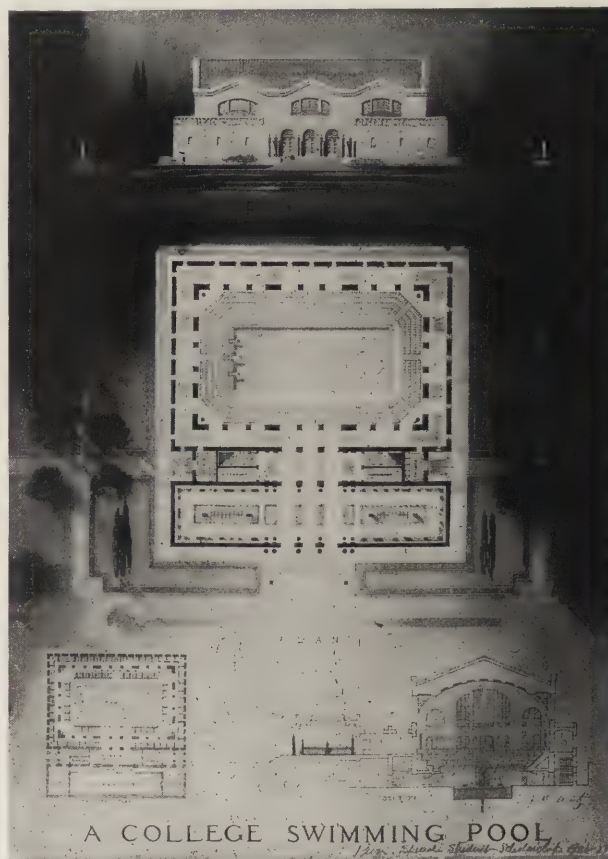
### CORRECTIONS

THE RENDERING ON the cover of the July issue of PENCIL POINTS was made by Sydney Jelinek and not Herbert Pullinger to whom we credited the drawing. John Molitor is the architect of the "Palace of Agriculture", the subject of Mr. Jelinek's rendering.

We regret that in the advertisement of the Cold Spring Granite Company appearing in this issue of PENCIL POINTS the name of the contractor is misspelled. The name should be Charles Skooglun.

### M. I. T. SPECIAL STUDENT SCHOLARSHIPS AWARDED

J. B. WERTZ, OF THE OFFICE of Pelton, Allen & Collens, New York, was placed first in the competition for special student scholarships, Department of Architecture, Massachusetts Institute of Technology. T. H. Dreih was placed second. The subject of the competition was "A College Swimming Pool". Mr. Wertz's design is reproduced below. Each of the winners is given a year's tuition at the Institute, amounting to \$300.00.



DESIGN BY J. B. WERTZ, PLACED FIRST  
M. I. T. Special Student Scholarship Competition



## PENCIL POINTS



LOUIS SKIDMORE

LOUIS SKIDMORE, winner of the Rotch Traveling Fellowship for 1926, was born in 1897 at Lawrenceburg, Indiana. He attended public and high school at Peoria, Illinois, and later at the Bradley Institute in that city. During the War he was in the United States Air Service and later was an instructor in mechanical drawing for two years at the Pullman Technical School, Chicago, Ill.

In 1921 he entered the Massachusetts Institute of Technology for the third, fourth and fifth years of architectural training. He was awarded the Rotch Prize for the best general average for third and fourth year work.

For two years Mr. Skidmore was in the office of Maginnis & Walsh, Architects, of Boston, and he feels greatly indebted to Mr. Maginnis and to Charles R. Strong, Architect, of Cincinnati, Ohio; also Professor Emerson and Professor Fenian of M. I. T.

### WITH AND FOR OUR ADVERTISERS

(Continued from Page 110 of the Advertising Section.)

*The American Architect* has just published the Second Edition of "Advertising and Selling to Architects", a book which should be read by all manufacturers interested in advertising to members of the architectural profession. Copies may be secured by addressing *The American Architect*, 239 West 39th Street, New York City.

The United States Gypsum Company announces that Sabinite Acoustical Plaster, developed at Riverbank Laboratories, Geneva, Illinois, by Dr. Paul E. Sabine, is to be manufactured and marketed by the Gypsum Company under an exclusive license.

This material comes to the job already sanded and requires only the addition of water. It is porous in composition and instead of reflecting virtually all the sound that strikes it, as does ordinary plaster, it absorbs a great proportion of the sound, which it transforms by friction into heat-energy. Its covering capacity is greater than ordinary plaster and its application involves no greater problems than the application of ordinary plaster.

While this material was perfected over five years ago, it has been withheld from the market by Riverbank Laboratories until actual job experience should substantiate or disprove the results obtained in laboratory tests. To obtain this job experience two rooms at Riverbank Laboratories, one room of the Geneva, Illinois, High School and auditoriums and radio broadcasting rooms at various points in

the United States were plastered with it. According to Dr. Sabine these test jobs all are in perfect condition and the material has performed identically on the job as it did in the laboratory.

Tests and researches into the physics of sound, according to Dr. Sabine, have demonstrated that through the use of this material a maximum of acoustical efficiency can be obtained in any theater, church, auditorium, school or other room.

Riverbank Laboratories, where Sabinite was developed, is a scientific organization that was founded and is maintained by Colonel George Fabyan. The researches into the physics of sound conducted there by Dr. Sabine are a continuation of the work begun by his late cousin, Professor Wallace C. Sabine of Harvard University.

The Mills Company, manufacturers of Metal Partitions and specialists in Steel Sash glazing and erecting, announce the acquisition of a new plant giving them over 50,000 additional square feet of manufacturing space.

## PERSONALS

BATES AND HOW, ARCHITECTS, have removed their offices to 145 East 57th Street, New York.

PETER E. CAMBURAS, ARCHITECT, has been elected as 2nd vice-president of the firm of Hall, Lawrence, Rippel & Ratcliffe, Inc., Architects, 123 W. Madison St., Chicago, Ill.

FRANK E. FOWLER AND H. GILBERT KARGES have formed a partnership under the firm name of Fowler & Karges, Architects & Engineers, with offices at 707 Furniture Building, Evansville, Indiana, as successors to the office of H. Gilbert Karges and the office of Shopbell, Fowler & Thole, Inc.

ROBERT PIOSO is now associated with the organization of Lincoln Norcott Hall, Architect, 7 West Madison St., Chicago, Ill.

EVERETT H. MERRILL, ARCHITECT, has removed his offices to 4475 Santa Monica Blvd., Los Angeles, Calif.

FORREST S. RUSK, ARCHITECT, has removed his offices to 35 East Main Street, Columbus, Ohio.

EDWARD JAMES is now associated with Lee Burns, Architect, 4205 Washington Boulevard, Indianapolis, Ind.

W. NEWTON DIEHL, ARCHITECT, has moved his offices to 904 Jefferson Building, Greensboro, N. C.

R. H. SHREVE, of Shreve & Lamb, Architects, was elected president of the New York Building Congress at their annual meeting.

ELMER A. STUCK has opened an office for the practice of architecture at Jonesboro, Arkansas, and would like to receive manufacturers' catalogues.

SAMUEL S. BENT has opened an office for the practice of architecture and engineering at 35 Bush Avenue, Port Chester, N. Y.

CHARLES W. TUFTS, ARCHITECT, has become consulting architect for the Jones & Laughlin Steel Corporation, 311 Ross Street, Pittsburgh, Pa.

We have moved

*from*

3035 Whitney Avenue

*to*

13502 Monte Vista Avenue

Detroit, Michigan

Mr. & Mrs. Lester S. Manning



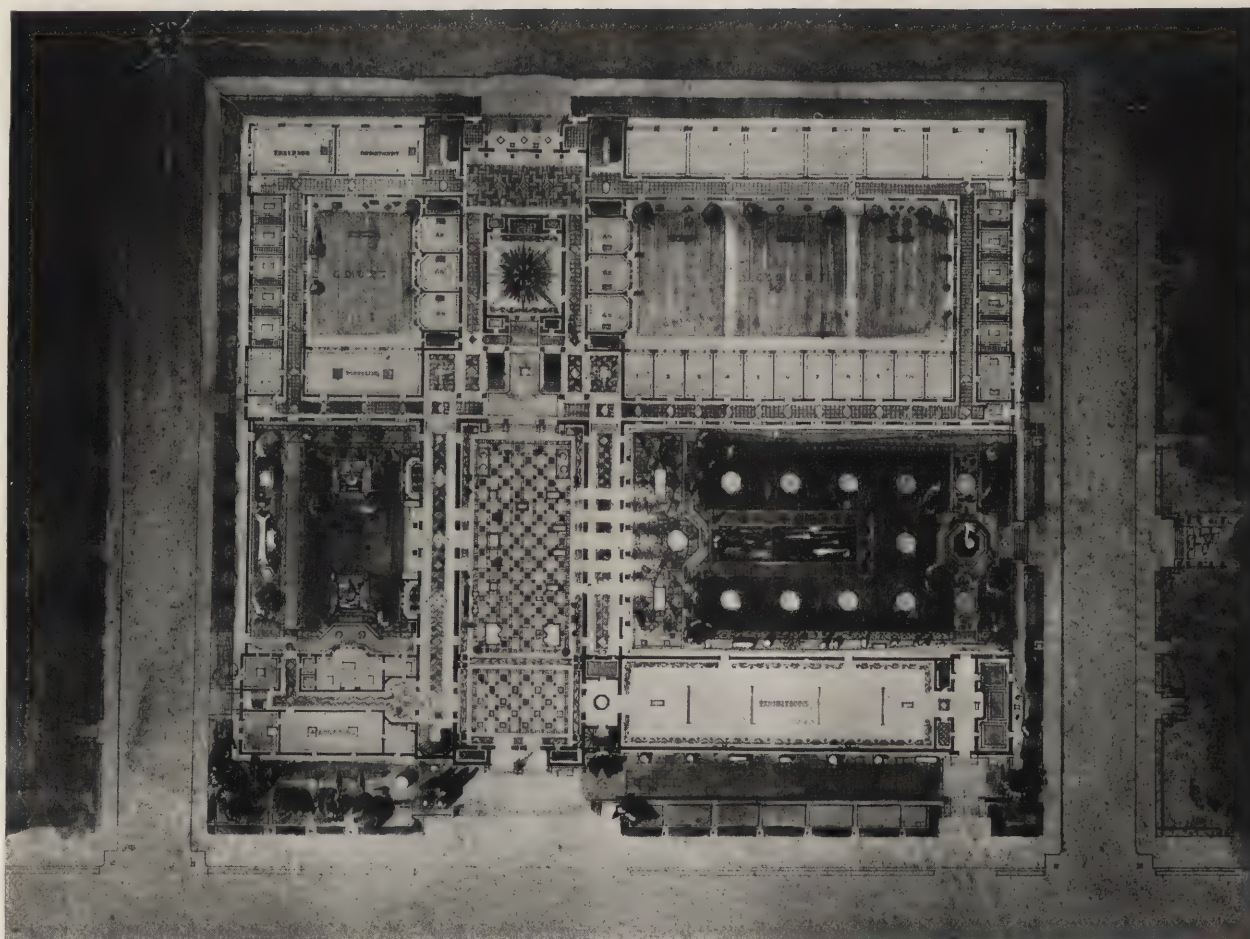
PENCIL POINTS



ELEVATION

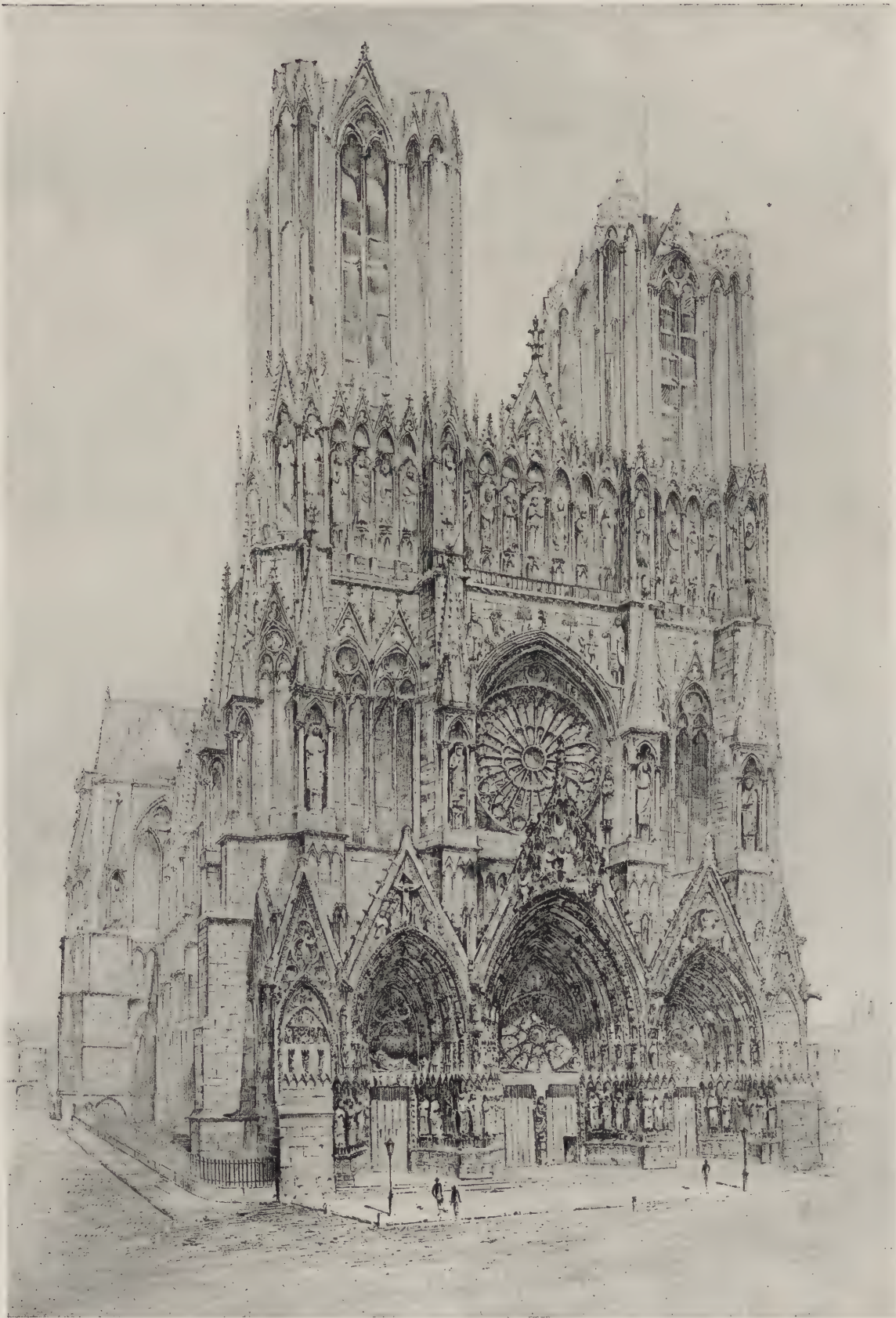


SECTION



WINNING DESIGN FOR "A SCHOOL OF ARCHITECTURE," BY LOUIS SKIDMORE  
ROTCH TRAVELING FELLOWSHIP FOR 1926





PENCIL SKETCH BY GEORGE W. SIEFKEN

RHEIMS CATHEDRAL AS IT WILL APPEAR WHEN THE WORK OF RESTORATION IS COMPLETED





*Pencil Sketch by J. R. Peterson*

#### SCHOLARSHIPS TO TEACH COLLABORATION

A NEW SCHOOL has been founded in the Middle West,—The Post Graduate Institute of Architecture and Landscape Architecture,—in which one of the primary purposes is to bring together during their period of study members of different professions who will necessarily do some of their best work in later practice by collaboration. A group of sixteen men and women have been awarded scholarships for three months of study in the field under a certain amount of guidance with all expenses paid and are now working in the vicinity of Chicago, carrying out the scheme of collaboration which has been conceived, living together, travelling together, working together and carrying out projects of identical nature.

The scheme was thought of by Mr. Ferruccio Vitale, Fellow of the American Society of Landscape Architects, and much of the planning of arrangements was done by him, no doubt based on wide experience he has had in connection with the work of the American Academy in Rome

where the collaborative idea among painters, sculptors, architects, landscape architects, and so forth, is one of the great benefits of the institution. The direction of the work this summer is undertaken by Stanley White, Professor of Landscape Architecture in the University of Illinois. The Institute is located at Lake Forest on the shores of Lake Michigan where fine opportunities are had for the study of the best in domestic and civic design together with great natural scenic resources and the

great fund of inspiration provided by the city of Chicago.

From time to time eminent practitioners in various professions are invited in to look over the work which is being done and give the students the benefit of their personal criticism. Lectures are attended now and then at the Chicago Art Institute and other places and many excursions are planned to take in places of unusual interest to students of the Fine Arts.

Much of the work of the first part of the summer consists of making sketches, measured drawings, water colors, etc., and the work of the last part of the summer will be one large competitive problem, the winners of which will be given an additional scholarship to take them abroad for a year's travel. This competition will be done by teams of students representing both professions so that the winners will consist of one architect and one landscape architect.

The students are selected for the summer's work by the various schools which have been chosen to send candidates: the University of Michigan, the Ohio State University, the University of Illinois and Iowa State College. Each school sends two architects and two landscape architects. The number of students is limited so that only graduates of high standing in scholarship will be enrolled for the work. It is hoped that the institute will be a great force toward the development of the arts in the Middle West.

The sketches reproduced on this page were made by students during the first week of this year's session.



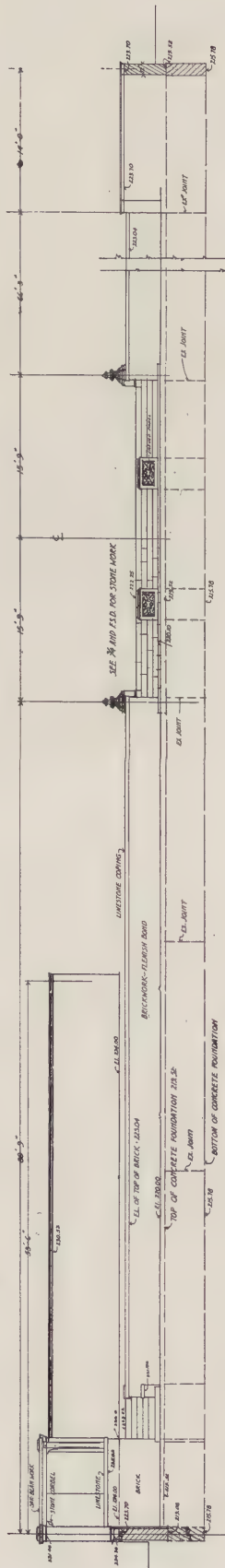
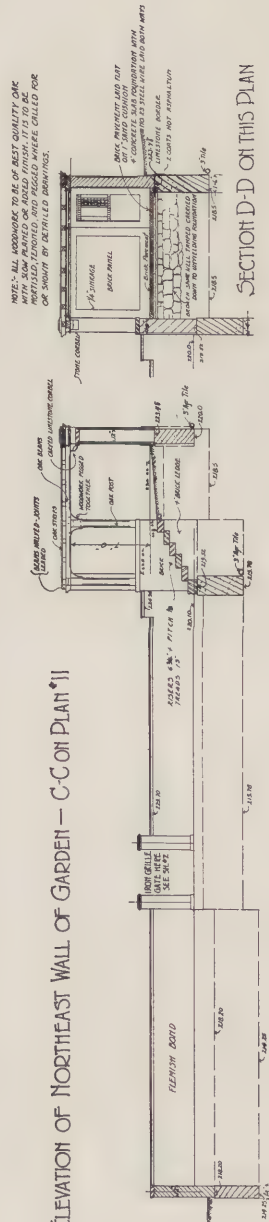
*Sketch of Detail by F. G. Scott*



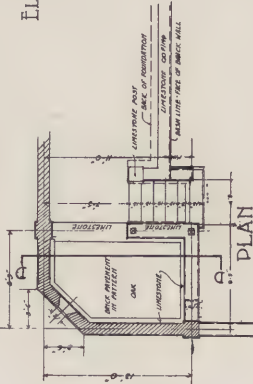
*Sketch of Detail by F. G. Scott*



# GARDEN ELEVATION OF NORTHEAST WALL OF GARDEN - C-C ON PLAN '11



## ELEVATION OF SOUTHEAST WALL OF GARDEN



ONE HALF PLAN OF CONCRETE FOUNDATION

ONE HALF PLAN OF LIMESTONE STEPS

Mr. HENRY G. LAPHAM  
BROOKLINE - MASS.  
CONSTRUCTION DETAILS FOR GARDEN  
SCALE 1/4" = 1'-0"  
QUARTED LIMESTONE - LIMESTONE MASONRY  
LIMESTONE MASONRY  
FILE TO NEW PLAN 10.17  
SHEET NO. 3

PLAN '17 SHEET '3

DETAILS OF CONSTRUCTION, GARDEN FOR MR. HENRY G. LAPHAM, BROOKLINE, MASS.  
OLMSTED BROTHERS, LANDSCAPE ARCHITECTS







# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

THE PERIOD OF SUMMER DULLNESS seems to be in our midst at the present writing. Contributions are not so plentiful this month, many of our staunch contributors apparently having gone on a vacation or something. We are going on a vacation ourselves one of these days and are going to leave this department flat, to be edited by some of the other folks around here who think they know a lot more than we do, and who are probably right. Maybe when we get back we will find things running along so smoothly that we will turn right around again and go off on another vacation.—And maybe not!—

The prizes this month are awarded as follows:

- Class 1 David Horn
- Class 2 Oong Gow
- Class 3 New Zealander (Anonymous)
- Class 4 Walter A. de Sager

Glad to see some of our readers from remote parts of the world sending in contributions now and then. A Scotchman won a ten dollar prize last month and this month a New Zealander walks off with one of them, so the boys and girls here in the States will have to get busy if they want to keep the money in the country. I suppose it is only fair if Bobby Jones goes over to England and wins the open golf championship, as we are told he did, for some of the PENCIL POINTERS from other lands to invade our shores with their pens and pencils and try to even things up!

Now come on you Scotchmen and New Zealanders, also all the rest of you located beyond the borders of the United States, and let's have plenty of friendly rivalry every month.

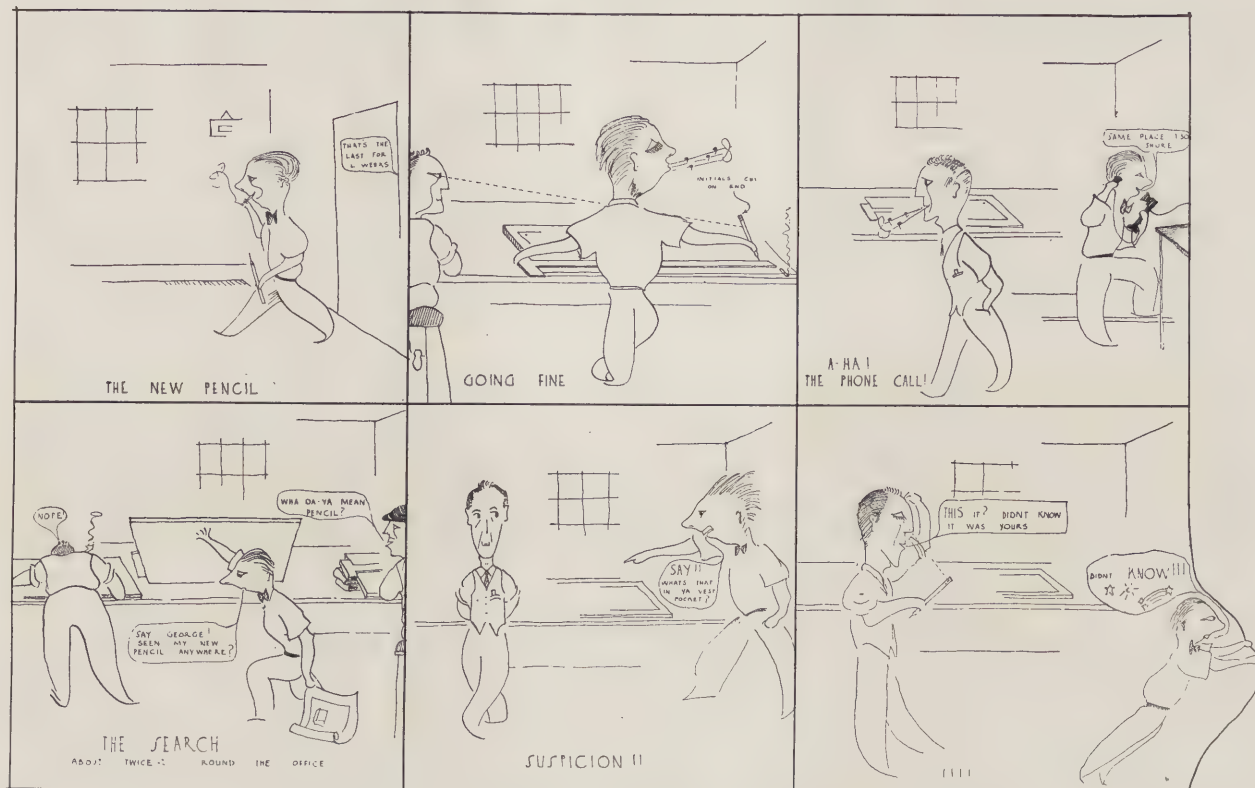
We are proud to have you all on our subscription list and to give your contributions equal consideration with the domestic product.



"OFFICE VIGNETTES," BY ROYAL BARRY WILLS, BOSTON, MASS.



## HERE AND THERE AND THIS AND THAT



CARTOON BY "A NEW ZEALANDER"  
(PRIZE—Class Three—July Competition)

Which reminds us this prize-winning New Zealander has not as yet disclosed his identity to us so we have been unable to send him the prize awarded to him in May. So if he will just tell us who and where he is we will forward the prizes and print his name in the paper.

### OUR OWN TRAVELOGUES (PRIZE—Class Two—July Competition)

Santa Barbara earthquake wrecks  
Are now displaced in Spanish and Mex.  
Some that's good and some that's bannered  
By architects, immodest, mannered.

Oong Gow.

M. R. Thayer, instructor in architectural drawing, at the Anaheim Union High School, Anaheim, California, has the right idea. He has organized an Architectural Club among his students called the T-Square Club which recently held a competition on the small house problem. One of the prizes offered was a year's subscription for PENCIL POINTS, won by Mr. Clyde Martin. Congratulations, Clyde!

### THE POOR BUILDER

Submitted by John A. Downs, Washington, D. C.

THE BUILDING LAWS promulgated by King Hammurabi, twenty-two hundred years before the birth of Christ, were brief but pointed. They were seldom evaded, because the penalty was severe and certain.

A translation reads:

"If a builder build a house for a man and do not make its construction firm and the house which he has built collapse and cause the death of the owner of the house—that builder shall be put to death.

"If he cause the death of the son of the owner of the house—they shall put to death a son of the builder of the house.

"If it cause the death of a slave of the owner of the house—he shall give to the owner of the house a slave of equal value.

"If a builder build a house for a man and do not make its construction meet the requirements and a wall fall in, that builder shall strengthen the wall at his own expense."



CARTOON BY ARTHUR HERRINGTON, BOZEMAN, MONTANA



PENCIL POINTS



PENCIL SKETCH BY OTHO MCCRACKIN, HUTCHINSON, KANSAS



WATER COLOR SKETCHES BY DAVID H. HORN, PASADENA, CALIFORNIA  
(PRIZE—Class One—July Competition)





PENCIL SKETCH BY OTHO McCrackin

#### AN OPPORTUNITY

WE HAVE ON HAND about 900 sheets, 13" x 18", each sheet containing several clippings of plans, elevations and sketches of ornaments, monuments, dwellings, cottages, furniture, churches, towers, libraries, museums, apartment houses, schools, municipal buildings, theatres, armories, etc., the accumulation of a lifetime by an architect now deceased.

These plates are very moderately priced, and are offered for your inspection and purchase at the PENCIL POINTS PRESS, INC., 19 East 24th St., New York City. Please call and ask to see them.



BOOKPLATE BY WALTER A. DE SAGER  
(PRIZE—Class Four—July Competition)



CHARCOAL STUDY BY EMIL FUCHS

#### COPIES OF PENCIL POINTS

WANTED AND FOR SALE

A. B. Gallion, c/o Le Beaume & Klein, St. Louis, Mo., wishes to obtain copies of March and April 1926 issues of PENCIL POINTS.

Alvin L. Earle, 67 Inman Street, Cambridge, Mass., wants a complete set of 1925 copies, and January, February, March and April issues of 1926.

F. W. Faxon Co., 83 Francis St., Boston, Mass., wishes copies of July and September 1920.

J. L. Dorman 3527 West 12th Place, Chicago, Ill., will sell all copies of 1921 except January; all copies of 1922 except February; 1923 complete; all copies of 1924 except January; all copies of 1925 except November; all copies to date of 1926 except January and April.

FOR SALE: Eight used volumes of Dumas books. Limp leather binding. In good condition. There are the "D'Artagan Romances" including the Three Musketeers, Twenty Years Later, Vicomte de Bragelonne, Louise de Lavallier, The Man with the Iron Mask. Also Chevalier d'Harmental, The Forty-Five, and Duke of Savoy's Page. These are offered at \$4.00 for the lot. Books may be seen at the office of PENCIL POINTS, 19 E. 24th St., New York.



SKETCH BY THOMAS MITCHELL, BRODY FERRY, SCOTLAND  
"High Bridge, Lincoln"



# THE SPECIFICATION DESK

## A Department for the Specification Writer

### WHO WRITES THE SPECS.?

LESTER N. SANGER

*In the office of John Russell Pope, Lester N. Sanger produces the specification documents, and here is a little article in which Mr. Sanger tells us all how he feels about it. And just by way of introduction to all those who may be interested in the subject of specifications here is a picture of Mr. Sanger.*

*This is the first of a series of articles to be contributed by different specification writers for the purpose of bringing about an interchange of ideas and of stimulating discussion. In the third paragraph of Mr. Sanger's contribution there is a wide open invitation addressed especially to contractors to say what they have to say on the subject of architects' specifications. We hope that some one will take Mr. Sanger at his word and handle the subject straight from the shoulder, and without any ifs, ands or buts. And this same invitation goes not only for contractors but for everyone else who has anything really vital and constructive to offer. Remember the door is more than ajar—it is wide open, the latch string is out and there is a pile of white paper at the print shop just waiting to be used in printing articles on any phase of the specification problem.—EDITOR.*

CONCERNING SPECIFICATION writing, a great deal could be written on the subject. However, the old saying holds true in this case as in many others, "It is easier to preach than to practice"; and I might add, much easier to criticize than to execute.

It is not my intention, therefore, to attempt to tell somebody else how a specification should be written, but I will merely state some of my feelings on the subject to be read for what they may be worth.

Before proceeding any further let me state that to my mind the best critics of specifications are the contractors, but very often, for obvious reasons, such criticism is withheld. It might be well worth while to have some of the reputable contractors frankly express their views on the subject. The writer has found that valuable information can be obtained from contractors, manufacturers and workmen.

Possibly no two specification writers work alike, and if a man is qualified he can no doubt accomplish the results desired with less effort by proceeding in his own way than by following the procedure of another.

The specification writer should of necessity possess more than a theoretical knowledge. He must have a thorough, practical knowledge of materials, erection, and the building industry in general.

To obtain some of the necessary qualifications, in my opinion, the student of specification writing should acquire his foundation or training not only from the inside of an architect's office, but from actual experience out on the job, and if possible, in the organization of a general contractor. After experience in the office of a general contractor one will realize that the Construction Department in estimating purchasing, as well as in field work, depends more intimately on the specification than is commonly recognized.

As to the writing of a specification: one of the first and important points is to visualize the building. This is



LESTER N. SANGER

*Mr. Sanger is a member of the Architectural League of New York and of the Construction Club of that city. He received his training at Columbia University and among the firms that he has been associated with are Carrère & Hastings, Delano & Aldrich, Dennison & Hiron, Marc Eidlitz & Sons, and Hoggson Brothers.*

important as one cannot produce a clear specification if conception of the building is vague. It is essential (especially in offices producing the higher grade of work) that the specification writer should have sympathy for the design and architecture, to enable him to properly interpret the intention of the designer.

Specifications should be arranged as much as possible to facilitate estimating and subletting of the work and written in sections covering the various branches of the work as nearly as possible in the proper sequence of building construction. This arrangement demands some knowledge of jurisdictional awards in the Building Industry. Although the specifications are arranged with a view to convenience for letting the necessary sub-contracts, all reference to sub-contractor for any of the work should be avoided.

A good Index is a convenience and time-saver.

General Conditions should be in accordance with the office practice—checked to suit the job and in no way conflict with the articles of Agreement used.

A definite correlation should exist between drawings and specifications but duplication of information should be avoided. The practice of specifying or describing certain work (such as ornamentation, or special conditions of flashing, waterproofing, etc.) which should be shown on the drawings, thus leaving to the contractor to interpret what is wanted, should be avoided.

To my mind, the drawings and schedules should cover as far as possible the locations and extent of the various materials and finishes. The specification should give only a brief descriptive list of the work included but should include in detail the definite kind and quality of materials used and requirements of workmanship. Our office has found it good practice to formulate schedules accompanying the drawings, which give locations and finish materials of the various spaces, window and door openings, stairs, etc.



## PENCIL POINTS

The specification refers to the schedules thus eliminating long lists of locations, numbered openings, etc., which would not be obtainable until the drawings are completely lettered and numbered as to spaces and openings. It is seldom, in most offices, that the ideal arrangement of writing from a completed set of drawings prevails. Reference to schedules will reduce the possibility of discrepancies between drawings and specifications as to the scope of the various items.

Results desired are essentially a specification requirement. However, the method in obtaining the results can and should be, in most cases, left to the contractor who may use his own method, probably just as satisfactorily and with less expense. If responsibility for the results to be obtained is placed upon the contractor, it is reasonable to feel that he should not be dictated to in regard to the method of construction obtaining the result desired. Legally the contractor, no doubt, would be relieved from responsibility as to results if he followed a definitely specified method for doing the work.

Each specification should be treated as a separate problem. A specification writer should try to systematize, but not necessarily standardize, his work. In reference to a systematic method of writing specifications, it is necessary to bear in mind that the type of work and practice in the different architectural offices varies and, therefore, the method of writing specifications will vary.

In any and all methods of writing specifications however, facts should be considered rather than opinions, and fairness to all parties constantly kept in mind.

### SPECIFICATIONS

By W. W. Beach

#### ELECTRICAL WORK

(Continued from Page 452, July Issue)

(D) PLUG RECEPTACLES shall be "—" No. — or "—" No. —, capable of carrying 100 W each. Where so indicated, 2-plug receptacles shall be installed in single gang of 200W capacity.

(E) FLOOR-PLUG BOXES shall be of approved type and make, similar to "—" No. —, with cast iron box, porcelain receptacle, composition plug, waterproof brass plate etc., all as catalogued.

(F) WALL SWITCHES, except where otherwise specified, shall be wall-type, tumbler switches of approved make, similar to "—" No. —, single or in gangs, as indicated. All switch-plates shall be  $\frac{1}{8}$ " brass, finished to match hardware of room in which located, properly secured, without binding the switch. Plates for gang switches shall be in single piece. In unplastered rooms, wall switches shall be approved snap-switches.

#### ARTICLE 5. Wiring and Equipment.

(A) WIRE AND CABLE. All wire and cable shall be "—" "—" or "—" highest-quality tinned copper of 98% conductivity, conforming to the latest requirements of the National Electric Code. All wire shall be rubber-covered and double-braided, with colored woven threads in braid to identify; each coil to bear Underwriters' tag with Maker's name, date and maximum voltage noted thereon. Where not specifically stated, all branch wires shall be No. 12, except for single outlets and for runs shorter than 75', carrying less than 100 W, for which No. 14 may be used for any light or power circuit. Wire, No. 6 and larger, shall be stranded, as required by Code. Special approved weatherproof wire shall be used for all extensions to outside outlets. Wire for clock and buzzer circuits shall be approved No. 18 covered wire, standard for such work, run as directed, not in conduit.

(B) SWITCH-BOARDS AND CABINETS. Service-box at point where mains enter through wall shall be an approved cast iron or steel box containing 500-Amp knife switch and cartridge-fuse, mounted on slate base. There shall also be installed, at points shown, one main switch-board and five secondary panel-boards, one in each story and one on stage. Panel-boards shall be  $\frac{3}{8}$ " slate, polished and oiled, with wiring-troughs of  $\frac{1}{2}$ " slate, all mounted in standard steel boxes, fitted with hinged steel doors with approved flat-key locks with all keys alike. Each panel-board shall be of proper size to accommodate the switches and fuses in orderly arrangement in accordance with Contractor's detail drawings, which shall be submitted for approval, as specified in General Conditions. Main switch-board shall be located in machinery room in basement, about where shown, shall

be of  $1\frac{1}{4}$ " slate, mounted on a rigid frame of  $2"x2"x\frac{1}{4}"$  steel angles securely anchored to floor and wall. All slate shall be of selected quality, free from mineral veins or other defects which might impair its strength, appearance or insulating qualities. All exposed surfaces shall be smooth-polished, with beveled edges and rubbed-oil finish. Steel for panel boxes shall be of No. 10 gage in single piece, bent to form, with corners riveted and fronts fitted with steel angles tapped to receive trim, and with proper supports for slate work. Doors and trim shall be No. 8 gage, with flush surfaces. Doors shall be fitted inside with glass panels in steel frames to contain approved wiring diagrams and outlet indices.

(C) MAIN AND CIRCUIT SWITCHES. All main, branch and power switches shall be triple-pole, single-throw, of heavy construction, of cold-rolled copper, of approved make and design, for 220 volts. All connection studs shall be of copper of ample size, fitted with approved copper lock-nuts. Cross-bar handles shall be of approved, smooth-polished, black composition. Dimmer to control auditorium lights from stage panel board shall be "—" Co.'s No. — or similar, approved by Architect.

(D) BUS-BARS shall be of cold-rolled copper of 98% conductivity and of ample carrying size, no bars less than  $\frac{3}{8}"x1"$  and none less than switch capacity. Bars shall be smooth-polished and have all connection surfaces machined and thoroughly cleaned. All connections shall be perfect in design and construction.

(E) FUSES shall be "—" or other approved enclosed cartridge-fuses, of required amperage and proper copper knife-blade connections.

(F) FUSE-PLUGS shall be "—" or other approved make and of required amperage, with sockets neatly mounted on slate boards in approved manner.

(G) LIGHTING FIXTURES, except those of special design, are from the catalog of "—" Fixture Co. and shall be complete as therein stipulated, with glassware and all metal parts and wiring. All exposed metal work shall be polished natural bronze finish, without lacquer, except for exterior work, which shall be rustless black iron, and for work in basement, shops, kitchen and store rooms, which shall be ordinary lacquered brass, and for that in nurse's room and in toilet rooms above basement, which shall be heavy white baked enameling.

(H) SOCKETS shall be "—" or other approved make of standard screw socket, with keys, except where chain-pulls are indicated by "C" on plan or in schedule.

(I) CORD DROPS shall consist of best approved braided cotton cord and key-sockets.

(J) ALL LAMPS in gymnasiums and shops and on cord drops shall be protected with approved tinned wire guards similar to "—" for ceiling fixtures and "—" for individual lamps, the latter to have key lock, securing both guard and lamp, with duplicate keys to be delivered to the Superintendent.

(K) LAMPS shall be "—" or other approved make, of wattage indicated. Outlets marked "E" shall have 10-W ruby lamps. All lamps shall be tested and certified new and perfect.

#### ARTICLE 6. Miscellaneous Work.

(A) CLOCKS shall consist of an electric-winding program clock and secondary clocks, of "—" Clock Co.'s or other approved make, in finished oak cases, Roman dial numerals, and completely equipped to operate with transformer from the electric lighting current through storage battery and rectifier, with panel-board at convenient point near master-clock, all as shown on Maker's diagrams, which shall be submitted for approval. Clocks in gyms shall be protected by approved metal grilles. House bells shall be 6", dust-proof, and the outside gongs shall be 10". All shall be completely equipped, with provision for ready operation of the system by hand for emergency or alarm.

(B) BUZZERS shall be "—" No. — or other approved pattern in iron boxes, operating on 6 volts, supplied through transformer from electric lighting current. Push-buttons shall be neatly mounted on an oak panel-board convenient to principal's desk, each button provided with clearly legible label. Panel board shall be similar to No. — in catalog of "—" Co.

#### WORKMANSHIP

##### ARTICLE 7. Conduit Work.

(A) INSTALLATION OF CONDUIT shall be in accordance with best approved methods, all joints having sharp-cut threads of good length to afford tight connections with couplings; with all joints made up butt to butt, with white-lead compound on male threads only. Both ends of all pipe shall



## PENCIL POINTS

be reamed after cutting threads, to remove all obstructions. All conduit, unless otherwise specified shall be run concealed in walls, partitions, floor construction or furred ceilings. No sharp bends or offsets will be permitted. Conduit in floor fill shall be laid close to arches and securely tied. Conduit in concrete slabs shall not be closer than 1" to bottom of same and shall be well secured in such manner as not to interfere with reinforcing members. Conduit in floor construction shall not cross over steam or water pipes and, where crossing other conduit (or in any case), shall not be allowed to come closer than 1½" to finished plane of floor. Conduit in furred ceilings and walls shall be securely wired. The entire conduit system shall be fished and thoroughly cleaned out before wires or cables are inserted. During construction, all open ends of conduit shall be kept plugged or capped and no sand or dirt allowed to enter same during storage or construction. Vertical runs of conduit shall be supported, once in each 15', with approved clamp-hangers.

(B) CONDUIT FITTINGS shall be of same quality and installed with same care as specified for conduit. All shall be smooth, inside and out; free from kinks, buckles and dents. All elbows shall be machine-bent to long radius and all openings smoothly reamed. Pull-boxes shall be installed, in approved locations, not over 150' apart in all straight runs of feeder conduit; not over 100' apart in runs with single right-angle bend; and not over 75' apart in runs with two right-angle bends.

(C) ALL OUTLET LOCATIONS shall be in general as shown on plans but may be more exactly determined by the Architect in the field, or by detail drawings. In no case shall the Contractor locate any outlet other than by specific directions. Power outlets, intended to serve the installations of other Contractors, shall be as directed by them. In general ceiling outlets shall be in centers of rooms or panels; bracket outlets shall be 6'0" above floor; switch outlets shall center 4'6" above floor; plug receptacles shall center 15" above floor. Drawings shall be consulted for exceptions to all the foregoing locations. No switch shall be placed back of doors, but shall, unless otherwise provided, be located convenient to door opening and about 6" from back of casing.

### ARTICLE 8. *Wiring.*

(A) MAINS will be brought into building by local Service Co., as stated in Par. F of Art. 8, at which point the Contractor shall provide inlet conduits for two No. 00 and one No. 2 (neutral) wires. On side wall, just inside of building, in approved location, there shall be installed a 500-Amp. main-line knife-switch and cartridge-fuse, mounted in cast iron or steel box. From this service-box, the two No. 00 and one No. 2 wires shall be extended to main switch-board in machinery room and there connected through meter to a second 500-Amp knife-switch. From this switch-board, there shall be run 5 branches of No. 4 wire, one to panel-board in each story and one on stage, each branch controlled by a 100-Amp knife-switch. There shall also be located on main switch-board a control knife-switch of proper size for each basement power outlet. Each of these branch and power outlets shall be protected by a cartridge-fuse of proper size. Power circuits shall be 3-wire for 220 volts and lighting circuits 2-wire for 110 volts.

(B) BRANCH WIRING. The branches of No. 4 wire shall be connected, in each case, to a second 100-Amp knife switch, mounted on panel-board, which shall also accommodate a 15-Amp plug-fuse and socket to control each circuit.

(C) IN GENERAL. Circuits and feeder wires shall be continuous. Splices in other wires shall preferably be made nearest to further end and none shall be made between boxes. All joints shall be mechanically perfect, soldered, compounded, rubber-taped, friction-taped and again compounded. Loops at least 6" long shall be left at all outlets for connections.

### ARTICLE 9. *Panel-Boards.*

(A) MAIN SWITCH-BOARD shall be as specified in Arts. 5 and 8, located as directed, 3'0" from wall in machinery room and rigidly anchored to both wall and floor. It shall be of proper size to accommodate the meter, main switch, 5 branch-switches and switches for the several power lines called for; also the cartridge-fuse to protect each switch.

(B) PANEL-BOARDS for branch circuits shall be located as shown, in each story, 6" above head casing of steel lockers. All shall be recessed, to have steel casings finish flush with plaster surfaces. Each panel-board shall accommodate the branch-switch and plug-fuse-socket for each circuit. Similar panel-board shall be located in recess in wall on

stage, adjoining proscenium opening, at proper height for easy operation. In addition to main-branch-switch and plug-fuse sockets, this board shall also have dimmer mounted thereon, controlling all outlets in auditorium, including those lighting proscenium.

(C) IN GENERAL. Each panel-board, other than main switch-board, shall be mounted in steel cabinet, as specified in Art. 5. Each panel-board shall be of slate, as therein specified, with all fittings symmetrically arranged and properly connected. Drawing shall be submitted showing arrangement of fittings and wiring for each board, none of which will be accepted, unless in accordance with approved drawing. Circuit controls shall be in numerical order, with the circuit numbers stamped on copper bars.

### ARTICLE 10. *Switches.*

(A) SWITCHES ON PANEL-BOARDS shall be as specified in Arts. 5 and 9.

(B) WALL SWITCHES shall be as specified in Art. 4, single or in gangs, as indicated. Each light outlet shall be controlled, either by wall-switch or chain-pull, except that cord-drops shall operate only by socket-key.

(C) SCHEDULE REFERENCES to switches are as follows:—

"A" indicates switch on side-wall of room to control ceiling-lights. "B" indicates 3-way switch on wall near stairs to control lights above or below.

"C" indicates chain-pull sockets.

"D" indicates switches with ruby pilot-lights on switch-plates to control lights in roof-space and vault.

"E" indicates switch to operate with flat-key, all keys alike.

### ARTICLE 11. *Outlets and Fixtures.*

(A) SCHEDULE.

(Note: Upper figures at electric outlets on plans indicate circuit numbers and lower figures indicate wattage of outlet.)

(Here is given a complete schedule of all electric outlets, room in which located, number and kind of fixture (pendant, bracket, receptacle or what not), catalog page and plate number, number of lights, wattage, switch reference and circuit number. Giving this in detail here would serve no purpose.)

(B) CIRCUITS. Circuits 1 to 8 inclusive, 17, 35, 36, 37 and 38 are on basement corridor panel; 9 to 16 inclusive are on stage panel; 18 to 24 inclusive are on first story panel; 25 to 34 inclusive are on second story panel; and 39 to 48 inclusive are on third story panel. Circuits 49 and 50 are No. 8 wire for 220-V circuits to motors in fan rooms. Circuits 51 to 54 inclusive are spares for future 220-V circuits to motors in manual training room.

(C) LIGHTING FIXTURES shall be installed (as specified and catalogued) by expert fixture hangers, all pendants plumb and in perfect alignment, and all brackets exactly normal to the planes supporting same. Each fixture shall be properly fitted with glassware specified or indicated in catalog, with lamps of specified wattage, all in good condition when work is accepted. 50 lamps each, of 40, 100 and 200 watts, shall be provided, tested in presence of Superintendent and stored where directed. Approved factory-sealed packages need not be tested. Shop drawings, in accordance with Architect's details, shall be submitted for outside wrought iron brackets.

### ARTICLE 12. *Low-Voltage Work.*

(A) PROGRAM CLOCKS. Master-clock shall be installed as directed in Principal's office, and 28 secondary clocks in various other rooms, as indicated, all in accordance with standard directions of the Maker, with necessary modifications, as approved by Architect, to suit this particular work. All wiring shall be concealed in approved manner and necessary connection made with lighting current through transformer. Panel-board shall be located near master-clock, and all bells and outside gongs properly mounted in approved locations and properly connected. All parts shall be in perfect condition when subjected to final tests, both by hand and electrical operation.

(B) BUZZER SYSTEM shall be installed as specified in Par. N of Art. 3 and Par. B of Art. 6, with all wiring concealed in approved manner. Panel-board shall be mounted on or near Principal's desk and all buzzers in various rooms as directed. All shall be tested and shall be in good working order when accepted. Wiring shall be with No. 18 bell wiring for 6-volt current supplied through transformer off of lighting current.

(C) TELEPHONE CONDUIT will be left as approved, ready for insertion of Telephone Co's wires.



# PUBLICATIONS

## OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm using them. When writing for these items please mention PENCIL POINTS.*

**Laundry Machinery.**—A. I. A. File No. 35 D. Looseleaf data portfolio showing typical layouts at large size and other valuable information for those contemplating the installation of modern laundry equipment. Standard filing size. 8½ x 11. American Laundry Machinery Co., Cincinnati, Ohio.

**Wall Paper.**—Monthly publication of interest to those concerned in wall decoration. The issue for July contains five beautiful color plates in addition to other attractive illustrations and suggestions for wall treatments. Wall Paper Manufacturers Association, 461 8th Ave., New York.

**Cool, Fresh, Invigorating Air.**—Leaflet on the subject of ventilating fans. Cross sections, dimensions and tables of sizes. B. F. Sturtevant Co., Hyde Park, Boston, Mass.

**Doorways.**—The July issue shows an attractive picture of a doorway 83 years old and contains much practical information as well. Richards-Wilcox Mfg. Co., Aurora, Ill.

**Iron, Bronze and Wire Works News.**—Monthly publication of interest to architects published by the National Association of Ornamental Iron & Bronze Mfrs., 614 Race St., Cincinnati, Ohio.

**Atlantic Terra Cotta.**—Monthly magazine for architects and draftsmen. Vol. 8 No. 9 is devoted to the activities of the Southern Branch of the Atlantic Terra Cotta Co. and shows many notable examples of buildings throughout the South in which Atlantic Terra Cotta figures prominently. Atlantic Terra Cotta Co., 19 West 44th St., New York City.

**Crittall Standardized Casements.**—Architects Catalog No. 1-26 is a complete handbook on casement windows for residential use. Profusely illustrated, containing suggestions for screening, details, sections, specifications. A. I. A. File No. 16-e-1. 31 pp. 8½ x 11. Crittall Casement Window Co., Detroit, Mich.

**Bridgeport-Keating Flush Valves.**—Instruction and data book describing and illustrating various models of this type. Also contains installation instructions. 16 pp. 4 x 9. Bridgeport Brass Co., Bridgeport, Conn.

**Massachusetts Modified Squirrel Cage Fans.**—Bulletin No. 53 illustrates and describes this type of fan. Contains information and tables specially compiled for the use of architects and engineers, performance charts and specifications, details, cross sections. A. I. A. File No. 30 D-1. 26 pp. 9½ x 12. Massachusetts Blower Division of The Bishop & Babcock Sales Co., 4901 Hamilton Ave. N. E., Cleveland, Ohio.

**Indiana Limestone Details.**—Service publication No. 13, series D-4. Another interesting number in this series containing detail drawings of Indiana Limestone cornices applied to reinforced concrete construction. Details of cornices in the Roman Doric and the Roman Ionic orders. Standard filing size. 8½ x 11. Indiana Limestone Quarries' Association, Bedford, Indiana.

**Waterproofing and Dampproofing.**—A. I. A. Classification 7a and 7b. Specification and data portfolio covering data and specifications on waterproofings and dampproofings, and allied products. Carefully indexed and logically arranged to conserve the time of those having use for such a document. Complete specifications in convenient form for ready use. Standard filing size. Master Builders Co., Cleveland, Ohio.

**MacArthur Piles.**—Folder illustrating and describing the Compressed Concrete Pedestal Type of Pile. 8½ x 11. MacArthur Concrete Pile and Foundation Co., 15 John St., New York City.

*Published by the same firm, Composite Type of Piles, Compressed Straight Shaft Type and The Influence of Shape on the Supporting Capacity of Precast Concrete Piles.*

**Ferrox Drill and Torch Resistant Vault Plates.**—Leaflet illustrating and describing this type of Vault Plates. Contains typical detail of Ferrox Plates and list of installations. 8½ x 11. American Abrasive Metals Co., 50 Church St., New York.

**40-40-20.**—Treatise on a tested first grade paint. Interesting information together with illustrations, formulas. New Jersey Zinc Co., 160 Front St., New York City.

*Published by the same firm, When White is White (paint facts) and Once In a Lifetime.*

**Data Sheets, A. I. A. Classification 12e1.**—Interesting data sheets and specifications on Roofing Tile illustrating the Georgian, and Mission style, details and plans. Standard Filing size. The Heinz Roofing Tile Co., Denver, Colo.

**Norton Floors.**—Folder illustrating and describing the Norton Floor for Heavy Duty. Specifications. 8½ x 11. Norton Co., Worcester, Mass.

**Stopping Fire Due to Chimneys and Flues.**—Booklet containing reprint from an address by D. Knickerbacker Eoyd, reprinted from Quarterly, April 1926, of the National Fire Protection Association. Much interesting material. National Fire Protection Assn., 40 Central St., Boston, Mass.

**Durable Douglas Fir.**—Handsome booklet illustrating and describing the uses of Douglas Fir. 32 pp. 7 x 11. The West Coast Lumber Trade Extension Bureau, Seattle, Wash.

**Truscon Roofs of Security.**—A. I. A. File No. 12 a 32. Contains a presentation of the two types of steeldeck roofs—"FERRODECK" and "I-PLATES". 8½ x 11. Truscon Steel Co., Youngstown, Ohio.

**The Bonded Floors Co., Inc.**, 1421 Chestnut St. Philadelphia, Pa., offer a series of booklets, with full color inserts showing standard colors and designs. Each booklet describes a resilient floor material as follows: "Battleship Linoleum," explains the advantages and uses of this durable, economical material; "Marble-ized Cork Composition Tile" contains complete information on cork-composition marble-ized tile and the many artistic effects obtainable with it. "Treadlite Tile", shows a variety of colors and patterns of this adaptable cork composition flooring. "Natural Cork Tile" contains description and color plates of this super-quiet, resilient floor. Practical working specifications for installing battleship linoleum cork composition tile and cork tile.

**Natco Tex-Tile.**—Bulletin Number 177 treats of the various types of Natco Double Shell Tile and is a complete text book for the guidance of architects, contractors and builders. Profusely illustrated in color and contains details of shapes and sizes of Natco Double Shell Face Tile, cross sections, suggestions for Pilaster Construction, Bay Windows, Chimneys, etc., tables for determining height and length of wall, compression tests. 8½ x 11. National Fire Proofing Co., Fulton Bldg., Pittsburgh, Pa.

**"R. I. W." Toxement.**—Architect's specification and descriptive Bulletin covering the use of "R. I. W." Toxement Integral Waterproofing Compound. This booklet gives complete and thorough data covering Toxement Compound for integrally waterproofing mass concrete or cement mortar construction. A. I. A. File No. 7 a 2. 9½ x 11½. Toch Brothers, 443 Fourth Ave., New York.

*Published by the same firm.—Steel Preservative Paints, Specification Bulletin covering R. I. W. Protective Paints. A. I. A. File No. 13 e.*

**The Dutch Boy Painter.**—A magazine devoted to the interests of good painting. July is the Sesqui-Centennial number. Very interesting little magazine, containing among other things an article on the "Decoration of Early American Interiors", also Decorative Painting in Colonial Times, and the "American Spirit in Colonial Architecture". Published by the National Lead Co., 111 Broadway, New York.

**Alpha Aids.**—No. 46 of this series presents among other things retaining walls. Cross sections and details are shown. Alpha Portland Cement Co., Easton, Pa.

**The Book of Decoration.**—Brochure, profusely illustrated, covering typical rooms in the various period styles, together with their finishing accessories. Notes on wood finishing. 50 pp. 8½ x 11. Murphy Varnish Co., Newark, N. J.

**Mueller Tile.**—Illustrated brochure showing architectural faience, polychrome, panels, Flemish hand-made tile, Norman, Flash Mosaic and other ceramic products. 48 pp. Mueller Mosaic Co., Trenton, N. J.

**Membrane Waterproofing.**—A. I. A. Classification 7-a-1. Document covering subject with drawings, photographs, specifications, tables of test values, etc. Standard filing size. 8½ x 11. 26 pp. Minwax Co., Inc., 270 Madison Ave., New York City—327 La Salle St. Chicago, Ill.

**Marbleloid—the Universal Flooring.**—Illustrated booklet covering subject of modern flooring in various types of buildings and for many uses. Industrial plants, restaurants, schools, hospitals, sales rooms, churches, theatres are covered. 24 pp. 8½ x 11. The Marbleloid Co., 461 8th Ave., New York City.

**Major Flood Light Unit.**—Bulletin No. 5 describes the construction and adaptability of the Major Unit for efficient flood lighting in theatres, show windows, mills, etc. List prices and dimensions. Major Equipment Co., Inc., 360 N. Michigan Blvd., Chicago, Ill.

**The Roof Beautiful.**—Brochure illustrated in color on the subject of roof treatment. 8 x 11. 32 pp. Ludowici Celadon Co., Monroe Bldg., Chicago, Ill.

**Greenhouse Studies.**—Series of renderings which include plans, elevations, sections and structural features of all types of glass enclosures, solar bathing rooms, glass enclosed swimming pools, aviaries and children's glassed-over play houses, as well as green houses of various types. A suitable binder will be furnished with first mailing. Lord & Burnham Co., 30 E. 42nd St., New York City.

**Water Mixing Valves.**—Illustrated handbook showing thermostatic water mixing valves for showers and a variety of other uses. Diagrams and complete specification data. 32 pp. 7½ x 10½. Leonard Rooke Co., Providence, R. I.

**The Kernerator.**—Covers disposal of rubbish and other waste in the residence and apartment building. 40 pp. 6 x 9. Kerner Incinerator Co., 1003 Chestnut St., Milwaukee, Wis.

**Store Front Construction.**—Full size details showing Kawneer construction. 16 x 20. Kawneer Mfg. Co., Niles, Mich.



# Competitions in Design

1—Competition for street traffic signal tower and traffic signal standard designs, and street lighting standard designs, including street name signs.

2—Competition for filling station designs.

for

## BISCAYNE BOULEVARD Miami, Florida

Conducted by BISCAYNE BOULEVARD ASSOCIATION

BENNETT, PARSONS and FROST, *Professional Advisers*

These competitions are approved by the American Institute of Architects.

[ Note: The electrical and mechanical equipment of the above structures is not a part of these competitions. ]

COMPETITIONS CLOSE 6 P.M. OCTOBER 1, 1926



Miami Harbor and Skyline of the lower portion of Biscayne Boulevard, taken from the new Causeway (Venetian Way) to Miami Beach and showing the Thirteenth Street Causeway in the foreground.

These competitions are open to all who desire to offer designs of merit for the above named structures. The purpose of these competitions is, [1] to obtain designs for traffic signal towers and standards and street lighting standards to be erected on Biscayne Boulevard, Miami, Florida. [2] to develop ideas for more pleasing filling station designs and [3] to stimulate general interest in the designing of better structures pertaining to public street improvement.

Biscayne Boulevard is a 100 foot street which extends from the center of Miami northward to Northeast 55th Street [three and one-half miles]. It runs along Biscayne Bay for one mile, and about one block from the Bay for the rest of its course through a high class residential section of Miami. The south end [formerly Bay Shore Drive] is an old street recently widened and improved. The north two and one-half miles is a new street opened by cutting through fourteen improved city blocks, widening a narrow street [formerly Northeast Third Avenue] through nineteen improved blocks, and extending the street thus created through the recently divided estate of Charles Deering, into Bay Shore, a suburb of fine homes. Biscayne Boulevard here becomes the Federal Highway, which combined with the Dixie Highway, extends 360 miles to Jacksonville, Florida, and beyond to the Northern States.

Buildings are now being demolished along the new portion of Biscayne Boulevard and this section will be opened about December 1, 1926. Already dwellings are giving way to buildings for showrooms, theatres, offices, restaurants and first class shops.

Being a main artery of through traffic, a system of traffic signals will be required, lighting will be made a feature, and the demand for filling stations along the northern section of the Boulevard must be taken into consideration.

The Biscayne Boulevard Association is anxious that such structures shall be well designed so as to add to the beauty of the Boulevard. The Association, representing more than 80 per cent of the property, is desirous to control in a measure the architecture and the uses of the street. With the cooperation of the City of Miami and the City Planning Board, Royal Palms will be planted the entire length of Biscayne Boulevard.

Any competitor may submit designs for one or both competitions. The awards will be made separately.

The Biscayne Boulevard Association agrees to award to the winners within 5 days after the judgment of the jury, \$4,650.00 in prizes as itemized below.

### Competition No. 1

1st. Prize . . . . .	\$1,000.00
2nd. " . . . . .	600.00
3rd. " . . . . .	400.00
4th. " . . . . .	200.00
6 Mentions, each. . .	75.00

### LIST OF PRIZES

### Competition No. 2

1st. Prize . . . . .	\$750.00
2nd. " . . . . .	400.00
3rd. " . . . . .	250.00
4th. " . . . . .	150.00
6 Mentions, each. . .	75.00

Program of the Competitions may be obtained by addressing Harry T. Frost, in care of:  
—Biscayne Boulevard Association, Columbus Hotel, Biscayne Boulevard, Miami, Florida.  
or—American Architect, 239 West 39th Street, New York  
or—Bennett, Parsons and Frost, 80 East Jackson Boulevard, Chicago.



# PENCIL POINTS

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## *Editorial Correspondence*

THE LETTERS addressed to the editor of PENCIL POINTS are varied in character, but those of general interest may be divided into two categories; letters asking for information, and those offering suggestions or criticisms. Some of the former flatter us with the assumption that we have a fund of information which could only be acquired by the immortals. Answering them gives pain, for it is necessary to admit that the writer's knowledge has limits and that he is not a prophet.

We are asked to recommend a window fastening which would not cost more than a dollar and by using which burglary would be made impossible, while at the same time the window could be left fully open from top to bottom. We have had letters, with diagrams attached, asking us how a smoky chimney which had defied the corrective efforts of three architects and two contractors could be completely cured.

Then there is the letter from an anxious mother giving a sketch of the character of her only son, accompanied by a photograph, asking us whether we considered him likely to make a great success as an architect or as a clergyman. She merely wanted to know what income we could guarantee he would be able to command at the end of five years. Another case was that of the inventor of a new style of architecture which he was anxious to introduce to a waiting world, who

wanted our advice as to how to go about it.

We receive letters, and we may add we are always glad to receive them, containing criticisms of the contents of our issues and suggestions as to their improvement. The reader of antiquarian tastes will suggest that we give too little space to representations of the architecture of the past, while the typically commercial man finds little to interest him in a dissertation on the architectural value of Greek sculpture. Many would have our pages little else than a collection of architectural features and details which might be useful subject matter for the melting pot of modern design. Unfortunately,

belief in a cause or school frequently begets intolerance towards the exponents of other beliefs. If our illustrations or articles sometimes serve to induce men to see matters from a point of view with which they are not altogether in sympathy, we have not worked in vain, for it is by acquiring a broader and more catholic outlook that the architectural profession will gain possession of a valuable means of bringing itself into touch with the general public, from which it obtains the opportunity of exercising its calling.

We hope that our friends will always give us their criticisms, which we promise will receive unbiased consideration. By so doing they are not only helping us, but are doing useful work for the calling whose needs they have at heart.

## C o n t e n t s

The Relationship Between Architect and Draftsman

*By J. Monroe Hewlett* 521

Silhouette—Richard M. Powers

*By Hubert G. Ripley* 523

"The Builder's Companion"

*By William Pain* 539

Wrought Iron Precedent, III.

*By Gerald K. Geerlings* 543

Plates 551-558

Renderings in Color *Insert*

Quiet Buildings

*By Vern O. Knudsen, Ph.D* 559

Design of Liturgical Vestments

*By W. A. de Sager* 561

Whittlings 563

Here & There & This & That 572

The Specification Desk 575

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ARCH OF TITUS, FROM THE PEN-AND-INK DRAWING BY RICHARD M. POWERS

*Original 7½" x 12"*



# PENCIL POINTS

Volume VII

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## DRAFTSMAN AND ARCHITECT

*By J. Monroe Hewlett*

"As the twig is bent so is the tree inclined."

"The child is father of the man."

THE DRAFTSMAN is the future architect and it is in his capacity as such that his relationship to his employer is of special interest.

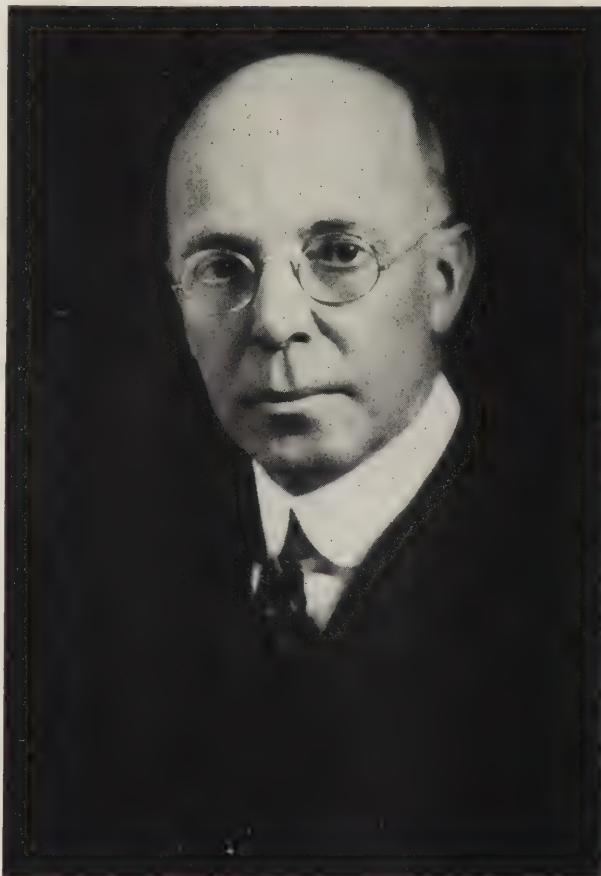
I happened to meet Henry Bacon in McKim's office a week or two after he had left that office and put up his shingle. Mr. Mead strolled through the room and greeted us and said to Bacon, "I bet you're missing that Saturday pay envelope", and Bacon said, "You bet I am." Much as we all have longed through our years of draftsmanship to get "on our own" the pay envelope is not the only thing that we have missed when the break was finally made. The men of my generation who look back over years of close association with such personalities as those of McKim, Hunt, Post, White, Mead, Peabody, Bruce Price, Robertson, Clinton, and Haight (to mention just a few of those whose personal influence is an abiding force among the architects of today), have, in this association, sub-

plemented what they got out of the schools by something less easily defined but infinitely precious. Wherever I go I run across architects whose thoughts and words instinctively turn back twenty-five or thirty years to the old office days and to some episode, often trivial in itself, which throws a flood of light upon the character of some one of that little band that made our profession what it is today.

The golden age of apprenticeship in the arts has been left centuries behind us, but the men who worked as draftsmen with some of those architects in the closing years of the past century have more nearly approximated that experience of the olden days than any men now living.

In these times of increasing specialization in draftsmanship, of bigger offices, of more shifting employment, the profession of architecture is in imminent danger of losing one important element in the training of its future practitioners; and that is training in the quality of leadership. Every great architect has been a leader, a leader of his own office staff, a leader among the agencies assembled for the construction of his works, a leader among the men of affairs who are his clients. The public and the average draftsman little realize all that is involved in such leadership. It is something that can not be learned in books or at the drafting table or on the job. It involves the power to make others see things from his point of view. It involves discrimination

between essentials and non-essentials to the end that the sacrifices, always necessary, shall be confined to the latter class. It involves the making of enthusiasm contagious. In the office it involves the creation of an esprit-de-corps. A body of men selected for ability and so of strong personality and definite ideas must, for the time being, subordinate themselves to what? Not to authority arbitrarily



J. MONROE HEWLETT



exercised but to an indefinable tradition of the office, something that gradually becomes apparent in the criticisms of the "Old Man" and in the comments of the other draftsmen on one's work. So the ardent individualist fresh from the school gradually acquires the idea that the greatest things in art are not the product of pure individualism but of team work coordinated and controlled by leadership.

Among my recollections of boyhood are certain notable occasions when my father, a merchant in the China trade, entertained at dinner some travelled Englishman or sea captain. There I sat with no feeling of conversational responsibility. Nothing to do but to partake of an unusually good dinner and to listen to stimulating experiences related by the men who had been through them. It was delightful and in the same way, later, when after some years in McKim's office it was my privilege to be present at interviews between him and various clients over the studies upon which I had been working and, with complete confidence in his ability to cope with the situation, to hear the discussion and observe his methods in "getting it across", I experienced the same sort of a thrill with an added elation due to the feeling that I was a part of the game. And how gentle and quiet his methods were, how hesitating and yet how tenacious of his point.

To one who has chased Stanford White for half an hour from drafting room to outer office and back again, then to the reception room and finally run him to earth in the library and forced from him, protesting to be let alone, brief criticisms and crisp de-

cisions, the brevity and crispness of those criticisms and decisions are enduring memories and the vivid and lovable personality that made them is an enduring inspiration.

And then there was Mead, more or less a man of mystery to the outsider, but to the draftsman "a very present help in time of trouble", always ready to listen and advise, able to see both sides of any question, an ideal foil for the temperaments of his partners. From him we got our best lessons in The Humanities.

If these words of mine succeed in conveying any adequate impression of what their term of apprenticeship in McKim, Mead & White's has meant and means to dozens of architects in practice today I shall be glad, for that is worth preserving, but I want to say in closing that, however essential the rare personalities of the three men who composed that firm were in the bringing about of such a relationship and such a tradition, it was not all due to them. It was partly due to the attitude of mind in which the student of that day sought admission to the architect's office. Such an apprenticeship, not too brief, was then rightly regarded as an essential part of an architect's education. With the improvement of our architectural schools service as a draftsman has come to be regarded more as a stop-gap, brief as possible, between school and independent practice.

However proficient our schools may become in teaching architecture they will never rival the competent, honorable practitioners in teaching students how to be architects.

*This is the second of a series of short articles to appear in PENCIL POINTS on the subject of the relationship between the architect and the draftsman. Future contributions to the discussion will be made by the following: Edwin H. Hewitt of Minneapolis, Walter W. Judell of Milwaukee, Albert Kahn of Detroit, H. Van Buren Magonigle of New York, F. R. Walker of Cleveland, Charles D. Maginnis of Boston, Myron Hunt of Los Angeles, Leon C. Weiss of New Orleans, William A. Boring of New York, William Leslie Welton of Birmingham, William Emerson of Boston, and Irving K. Pond of Chicago.*



# SILHOUETTES OF AMERICAN DESIGNERS AND DRAFTSMEN, III

RICHARD M. POWERS

*By Hubert G. Ripley*

THE FIRST TIME WE MET RICHARD POWERS was about ten years ago. He was then head draftsman in Little and Russell's office in Bromfield Street, Boston. That office was the *ne plus ultra* of architects' offices for its time, though since then the firm has moved to Newbury Street, where there is twice as much room and considerably more quiet distinction. The old office was all panelled in chestnut with early American bolection mouldings, rubbed down in wax, all carefully run in accordance with Powers' exquisitely drawn full size details. The new office is in stripped pine with plenty of sound knots showing, relieved with crackled white paint with a little umber rubbed in the crackles. Naive fire boards showing a high-busted early Victorian maiden placing a wreath of wax flowers beside an urn, charmingly obumbrated by a weeping willow tree, lean carelessly against the reception room walls. Newbury Street is very swank, almost entirely filled with architects, upholsterers, and Elizabeth Arden shops. The old office of Little & Russell was a very jolly place, with comfortable chairs and antique escritoirs with deep cupboards, containing fascinating bits of early American glass, Egyptian cigarettes, and always with a box of Coronas or Belindas at hand. We liked to look in frequently from our coop on the sixth floor. We were always sure of a bright smile from Marion, who presided over the outer office and whose tawny hair just matched the panelling, and a hearty welcome from Joe McGann, Hoppy and Powers.

It was amid such pleasant surroundings as this that Powers spent ten of the happiest years of his life. Under the kindly guidance of a sympathetic boss, his genius ripened, expanded, and fructified,

FOOTNOTE. The complete text of this famous song will be sent on request, in a plain sealed envelope, with no printing or advertising of any kind on the outside, if accompanied by a five years' subscription to PENCIL POINTS.

producing an unrivalled series of exquisitely finished, and at the same time incredibly delicate pen drawings, all done at odd moments outside the regular office hours.

If the firm was out when we called, which was not infrequently the case, we loved to listen to Joe's history of Sir Ormsby Ormsby's petillements, and stories about Otto Faelton and Dick Powers when they were all together down in Parker, Thomas & Rice's office. Otto and Dick were Joe's heroes and rightly so, for there never were such draftsmen as those two. The beauty of their  $\frac{3}{4}$  scale details is the despair of ordinary mortals and only a very select few can approach their perfections. While Joe talked Powers and Hoppy would keep right on working, their shoulders shaking with mirth from time to time at the climaxes. Powers said once that he got his idea of the little wiggly lines in his catalpa trees from trying to draw one while listening to Joe singing "The Jolly Fisherman who lived on the Banks of Lynn." (See footnote.)

We did not get really acquainted with Powers, that is in the sense of knowing him intimately, if you know what we mean, until

one afternoon in July, when we happened to stroll in the office about four o'clock in the afternoon. Both Little and Russell were out, but there was an electric feel to the air despite the extreme heat of the day. Marion was flushed and her beautiful eyes sparkled with excitement. Joe McGann and Hoppy were both talking at once in loud voices. Only Powers was cool and collected. "Mr. Powers has just won the White Pine Competition," screamed Marion. Even when screaming she always called Powers "Mister." That was only one of the nice things about her.

Joe and Hoppy rushed out waving a check for seven hundred and fifty dollars. "Smell of that!" yelled Joe. "Yoicks!" we cried, and all danced the







PEN-AND-INK RENDERING BY RICHARD M. POWERS, SUBMITTED IN WHITE PINE COMPETITION

DESIGN FOR A ROADSIDE TAVERN





DETAIL OF PEN-AND-INK RENDERING BY RICHARD M. POWERS SHOWN, OPPOSITE  
REPRODUCED AT EXACT ORIGINAL SIZE TO SHOW TECHNIQUE



PENCIL POINTS



PENCIL RENDERINGS BY RICHARD M. POWERS  
TWO COTTAGES AT LEXINGTON, MASSACHUSETTS, BY LITTLE AND RUSSELL, ARCHITECTS





PENCIL AND WASH DRAWING BY RICHARD M. POWERS

Carmagnole together. "If you'll meet me at the Winter Place at one minute past five this evening," said Powers, as he acknowledged our congratulations, with courtly hospitality, "we'll sample some of Eph's mint juleps. It will give me great pleasure to have you join us in drinking the health of that noble patron of Art, Mr. George F. Lindsay." We have never heard pleasanter words spoken.

The premiated design that had won this competition, was a wonderful drawing, done in masterly fashion, with incredible finesse, and still so simple and direct that there could be no question as to its outstanding superiority.

It would be difficult to say whether it was the drawing, or the thought of the mint juleps that gave us the keenest thrill, nevertheless at one minute past five we were standing in front of the dark mahogany bar in the cool quiet cafe of the Winter Place. Outside the heat was intense and the sun's rays blinding. The old slate slabs in the alleyway

felt hot through the soles of our shoes, but inside the light was subdued and the electric fans gave freshness to the air. Eph, the delightful white haired old bartender acknowledged our salutations, went to the great ice box, took out a large bunch of fragrant mint, wrapped in a snowy napkin, that had lain on the ice all afternoon. Four enormous glasses, each holding twenty-two ounces, were placed in front of us in careful alignment. Eph separated the mint and tucked a generous bunch in each glass. Next he put a scant dessert spoonful of granulated sugar on top, and gently crushed its tiny crystals into the tender leaves with a long silver spoon. After the mint and the sugar were well stirred, a little water was added to dissolve the sugar. Four big hookers of Old Western Reserve Bourbon and large scoops of finely shaven ice were then added. This was briskly agitated with the long spoon until a delicate white frost began to appear on the outside of the glass, then each tumbler was packed solid



PENCIL POINTS



PENCIL STUDY BY RICHARD M. POWERS  
SOUTH TERRACE, HOUSE AT BROOKLINE, MASSACHUSETTS  
*Little and Russell, Architects*





PENCIL STUDY BY RICHARD M. POWERS

SOUTH TERRACE ENTRANCE, HOUSE AT BROOKLINE, MASSACHUSETTS

*Little and Russell, Architects*



PENCIL POINTS



PENCIL STUDY BY RICHARD M. POWERS  
NORTH ENTRANCE, HOUSE AT BROOKLINE, MASSACHUSETTS  
*Little and Russell, Architects*





WATER COLOR STUDY BY RICHARD M. POWERS

LIBRARY FOR MRS. R. M. SALTONSTALL—LITTLE AND RUSSELL, ARCHITECTS

full with more shaved ice until big knots of frost stood out like the stuccoed surface of a California bungalow. A slice of pineapple and a slice of orange were tucked into the sides of the glasses, a goodly bunch of mint inserted on top, a fresh strawberry and a preserved cherry posed on the snowy mound, and a little powdered sugar sprinkled on the herbaceous frondage. The whole was given a *coup de grace* by the addition of a spoonful of cream of roses and a pony of apricot brandy.

For a moment we looked on this panurgy in silent adoration and then gently and reverently buried our faces in the mint, inhaling its fragrance, the while imbibing its precious nectar.

The salient feature of the mint julep is, that the slower it is consumed, the more exquisite and intense is the pleasure imparted to the consumer. Like Powers' pen drawings, the eye is enthralled, the palate titillated, its radiance increases. After two rounds of these masterpieces the party became very radiant. Reluctantly we left to catch the last train that would land us in Newtonville in time for dinner. Curiously enough, we missed the train by about one hundred feet, and decided to return to the Winter Place for a hasty bite, and then do a little work in the office. When we reached the café again, Powers, McGann and Hoppy were seated around a table just finishing a dozen cherrystone clams and sipping sloe gin rickeys. Powers explained that they selected sloe gin because he always admired the delicate pastel shade of the concoction when fizzed with fresh limes. "It reminds me of the Rembrandt tulips in front of the President's house in Georgetown," he said, "where I spent golden days." We were all talking earnestly and nibbling stalks of celery stuffed with a mixture of Roquefort and

cream cheese, moistened with Harvey's sauce and unsalted butter. M. Bonin, the chef, had a knack of dolling up celery with cheese that no one else seems to possess. He also has a knack with sole Marguery, lobster *Americaine*, sweetbreads and mushrooms *sous cloche*, lamb chop *Quartier Latin*, and a thousand other dishes. A veritable *cordon bleu* is M. Bonin, a true benefactor to the Human Race.

We joined the White Pine Party gladly and ordered a stuffed lobster Savannah style, and a pint of White Chablis. The others remained true to sloe gin rickeys, perhaps because, having familiarized themselves with the name at the start, it was easy of repetition. As the dinner progressed the talk became more ethical and technical. Such is apt to be the case with architectural gatherings, and we soon felt as if we had known Powers all our life. McGann is always bubbling over with geniality and good old Hoppy is the salt of the earth, even though Marion at times calls him "Old Respectability." Powers is more reserved, but in the right environment he expands and discovers himself wonderfully. He is very, very tall, a bit rangy but straight as an arrow, his hair bushy, thick and slightly waved, just the least bit tinged with gray above the temples. He possesses a deep resonant voice and an eagle eye. He commanded a company of militia for several years and was greatly loved and trusted by his men. We learned that he was born in Cambridge, Mass., in 1886, and that his waist measure is under thirty inches, which is remarkable considering his height.

His favorite poets are Robert Service and Sir John Suckling, though at times he loves to quote old Mat Prior's "Not Browne Mayd." There would





PRELIMINARY STUDY IN PENCIL AND GOUACHE, BY RICHARD M. POWERS  
MEMORIAL FOR THE TOWN OF PLYMOUTH, MASSACHUSETTS—LITTLE AND RUSSELL, ARCHITECTS





*The Memorial Building for the Town of Plymouth, Massachusetts*  
*by Little and Russell, Architects, Boston*

RENDERING IN PENCIL AND WATER COLOR BY RICHARD M. POWERS  
 MEMORIAL FOR TOWN OF PLYMOUTH, MASSACHUSETTS—LITTLE AND RUSSELL, ARCHITECTS





PEN-AND-INK RENDERING BY RICHARD M. POWERS  
DESIGN SUBMITTED IN SMALL HOUSE COMPETITION FOR THE WESTON REAL ESTATE TRUST  
*Richard M. Powers, Architect*





PORTION OF PEN-AND-INK RENDERING BY RICHARD M. POWERS, REPRODUCED AT THE EXACT SIZE OF THE ORIGINAL

*The complete drawing is shown on the opposite page.*





PEN-AND-INK RENDERING BY RICHARD M. POWERS, STUDY FOR A HOTEL IN BOSTON

LITTLE AND RUSSELL, ARCHITECTS

*On account of the great reduction in size from the original, this reproduction can give but an inadequate idea of the infinite delicacy and beauty of the pen technique used by the renderer in making this drawing.*





PEN-AND-INK RENDERING BY RICHARD M. POWERS, APARTMENT HOTEL IN BROOKLINE, MASSACHUSETTS  
LITTLE AND RUSSELL, ARCHITECTS



be times when for hours the office was quiet as a mouse, except for the steady click of Marion's dainty dactyls, and the soft swish of Hoppy's roll of Alba tracing paper, as study after study was dashed off, when suddenly the air would vibrate with the rich throaty tones of Powers' baritone as he recited:

"Now, syth that ye have shewed to me the secret of your mynde,  
I shall be playne to you agayne, lyke as ye shall me fynde:  
Syth it is so that ye wyll go, I wolle not live behynde;  
Shall it never be sayd, the Notbrowne mayd was to her love unkynde;  
Make you redy; for so am I, although it were anone;  
For, in my mynde, of all mankynde I love but you alone."

Hoppy would look out dreamy eyed over the roof tops in the direction of Newton Highlands, Joe McGann gaze thoughtfully down Boston Harbor towards Winthrop, while Marion would pause in her work, tip-toe quietly to the drafting room door, and sigh softly as the last words of that noble refrain died away in the muffled roar of a great city.

One of the reasons Powers is such a finished architect is his fondness for music. His favorite thesis is that with proper understanding one may translate symphonies into churches, rhapsodies into department stores, and little bits like rondos and capriccios into cottages and garages. In other words, music is architecture liquified. Powers will elaborate on that thesis most delightfully, ending by saying, "After all, why not?"

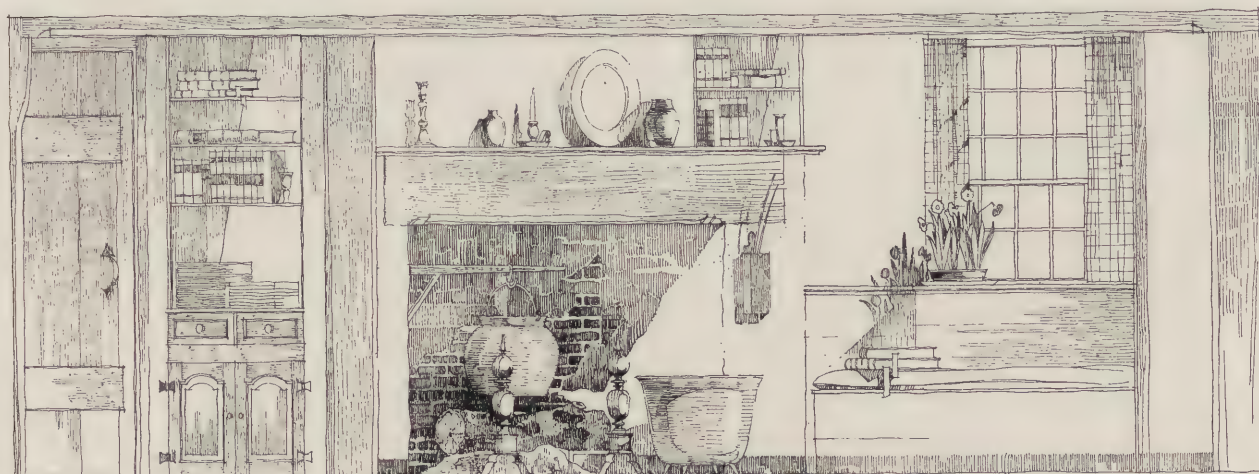
We sat and argued for some time and finally ended our dinner with an omelet *soufflé aux fraises*, and tiny glasses of Port and Starboard. A mellow summer moon was coming up behind Faneuil Hall as we finally left and sauntered up Washington Street, stopping a couple of times on the way for a little refreshment. One place in particular where Joe took us had bamboo decorations and painted palms on the walls, very tropical. Here we had a

curious beverage composed of Anisette and Booth's Old Tom, frappé-d to a milky consistency, served in Rhine Wine glasses. Joe called it some queer name, which we have forgotten, but it was quite palatable and an aid to deglutition.

Hoppy wanted to go to the Gaiety, so we bought some seats in a box, where we saw Al Reeve's Big Beauty Show or Sliding Billy Watson, we can't quite remember which. Hoppy's bright young face and genial smile made a great hit with the ingénue, to the delight of the select audience, and Powers gave the commands when it came time for the grand military drill by the entire company.

After the show we intended to go to Dryfuss's for a little bite, but we got into a very interesting discussion on Aztec Ornament somewhere in the middle of a side street. This lasted so long that before we knew it the curfew had sounded and it was time to go home.

The technique of an architectural rendering, like the theory of ornamental design, is a fascinating study for architectural draftsmen, even to those who do not practice the art themselves. Examine a drawing by Griggs, or Goodhue, or Rosenberg under a magnifying glass and hidden charms are revealed. It is particularly so with Powers' work, although the drawings speak for themselves and need no comment. Each new one is more wonderful than the last, and just as you feel that you know his work and have grasped it, he sends you spinning in a turmoil with some new expression or method that leaves you gasping. He has recently left us to practice "on his own" in Chicago, where he is already finding a larger field, perhaps, for the exercise of his genius. He cannot, however, be more appreciated than he was in his native city, and his many friends in Boston feel keenly his going, though he carries with him their sincere wishes for the success that is bound to be his.



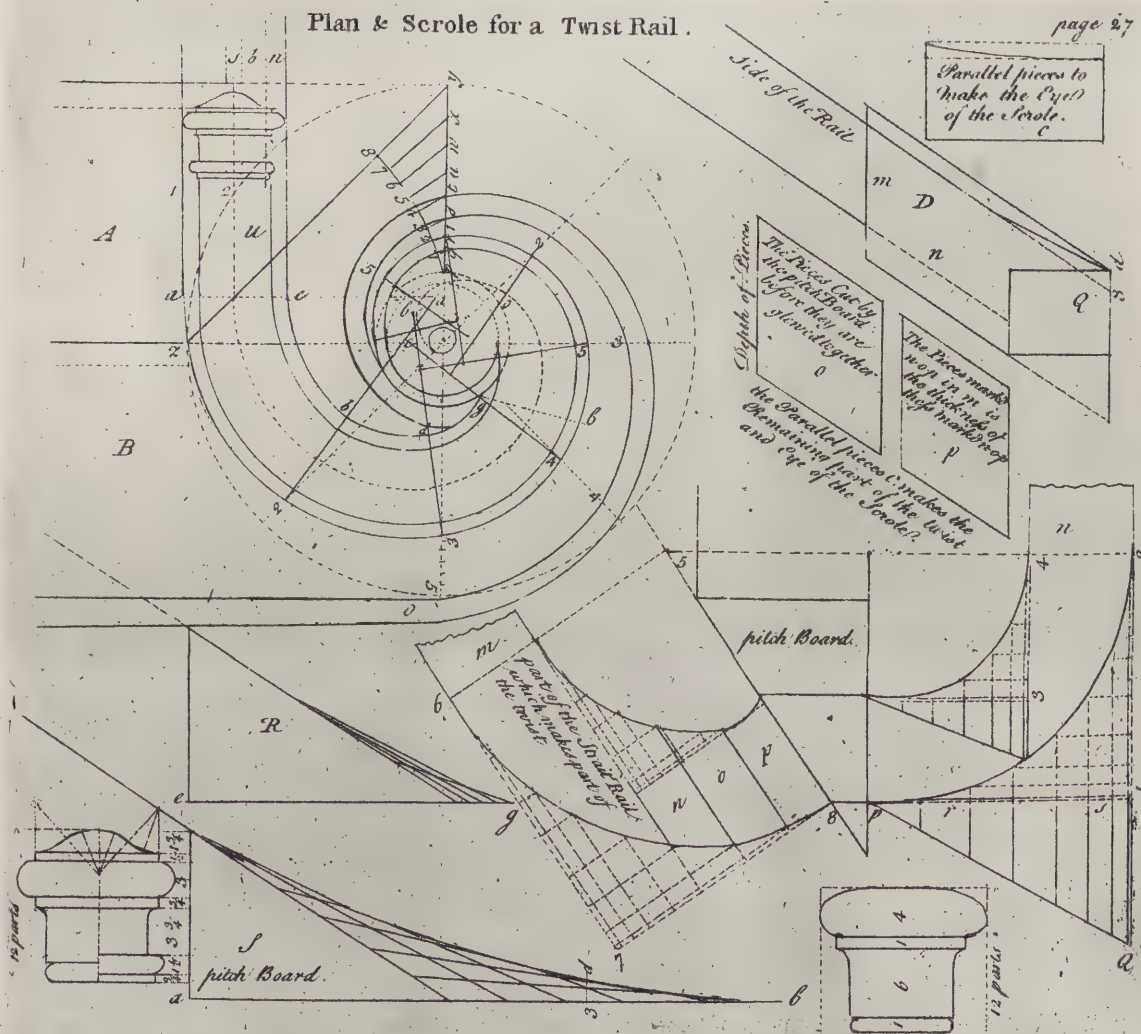
DETAIL FROM WHITE PINE COMPETITION DRAWING BY RICHARD M. POWERS



# PLATES FROM “THE BUILDER’S COMPANION”

*By William Pain, Architect and Joiner*

COPPER-PLATE ENGRAVINGS MADE IN 1762

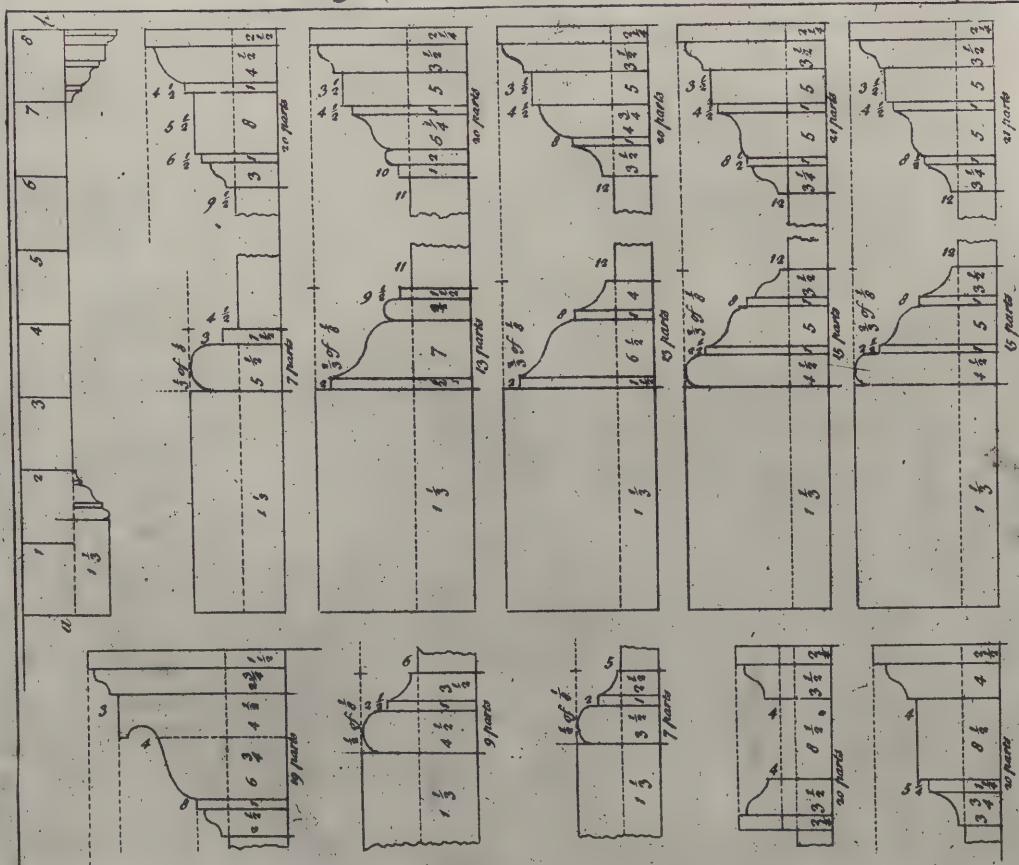


The manner of striking the Plan, and Sprole, for a Twist Rail. A and B is two steps of Stairs, and this the Plan of the hand Rail, and the Twist begins at a. e. on the second step of the Stairs. To make the Sprole, strike a Circle equal to the Breadth of two Steps. AB, then divide the Circle into 8 parts, and draw the dotted lines in the Circle, then draw the small Circle in the Center, equal to the projections of the Astragals on the hand Rail, then take half the bigness of the Rail, as 1.2, which add to the small Circle as the dotted lines 0, which is the bigness of the Eye; then draw the line 2 y, then to make the diminishing Scale, set the Compasses at 2, and describe the Arch line 1.3, divide it into 8 parts, that will be the diminishing Scale; — when the parts are drawn to the line p. y, then set the Compasses in the Center, and take distance to 3, on the Scale, turn over to 2, on the outside of the Rail, then take w, and turn over to 3, and so on for the rest, which will diminish the Sprole, the next thing is to trace a Raking Mould for the Squaring the twisted part of the Rail as m, which is traced from the plan n, that is agreeable to the plan w, then divide the two Arch lines of the plan h, into a number of Equal parts, draw the dotted lines each way the point of Division which will be in the Arch line, then draw the lines 1.2, 3.4, at pleasure, then draw 4.5 to the Rake of the Pitch Board, then draw the line 5.6, which gives the length of the Raking for the twisted part of the Rail then draw the line 7.8, then take the distances b.7, or 5.8, and make the line p. q, then drop the dotted line p. q, and that will be the divisions of the line b. 7, then the parts on the line w. s, is equal to the 7.8, then draw the dotted lines cross each other and tack naily in the Divisions, and bend a thin Rule and mark it by, that will be the Curve of the Raking Mould, the inside Curve is done in the same manner; then to find the Centers in the Eye take the distance from the Center to y, set one foot of the Compasses at 2, and touch the point a, with the same opening, set one foot at 2, and Bisect at a, then take from the Center to 3, set one foot at 2 and touch point b, with the same opening, set one foot in 3, and Bisect b, and so on for all the Centers in the Eye. To apply the Raking Mould m, to the Rail D, set the line 5. 6, in m, to the line m. d, as the Pitch Board gives it on the under and upper sides the Moulds R. s, gives the falling of the twist and the line a. b, is taking from the dash line on the plan h, as a. b, and e. g, from the plan i, and 3. d, in the Mould s, is the Wood wanting to be glowed on the top of the Rail, as 3. e, in Q, but the work part will come off in squaring &c. to strike the w. Side of the Sprole in a, the first part from c. to v, from b. to d, from d. to g, which is plain that all the parts meet at the Black Lines that Come from the Center to the out Side of the Raile as 2. 3. 4. 5.

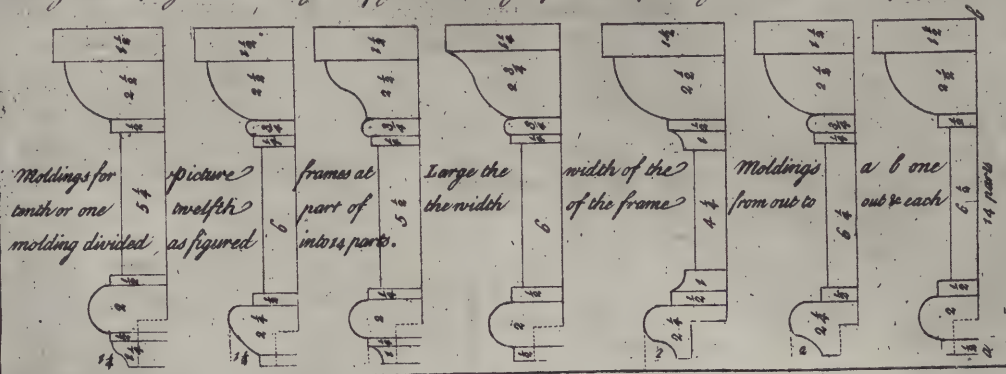


Moldings for the pedestal part of Rooms.

page 50.



To proportion the Base and Cornices to the Pedestal part of Rooms, suppose a. b. to be a given Height of the Pedestal part of the Room, and that Height always to be divided into eight parts and give one, and one third to the height of the Plinth, and two thirds to the Base Molding, and one eighth part to the Cap or Cornices of the Pedestal; and the height of the Base and Cornices, to be divided into as many parts as is figur'd at the back of each Molding; and them parts to be dispos'd to each member in height and projection as they are figur'd; the height from two foot eight Inches to three foot.



Moldings for cornice or one molding divided

picture itself as figur'd

frames at part of into 14 parts.

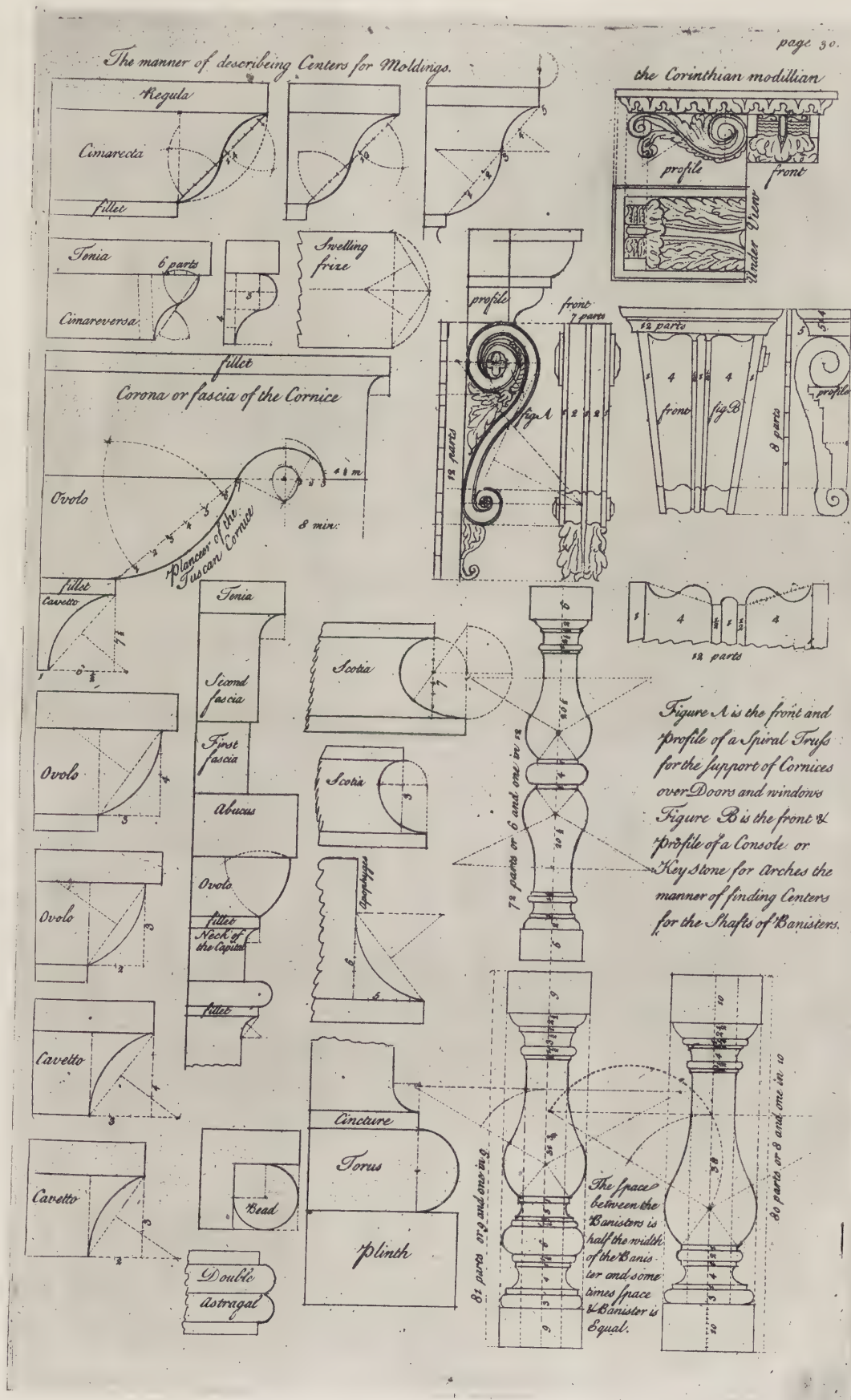
Large the the width

width of the of the frame

Moldings from out to

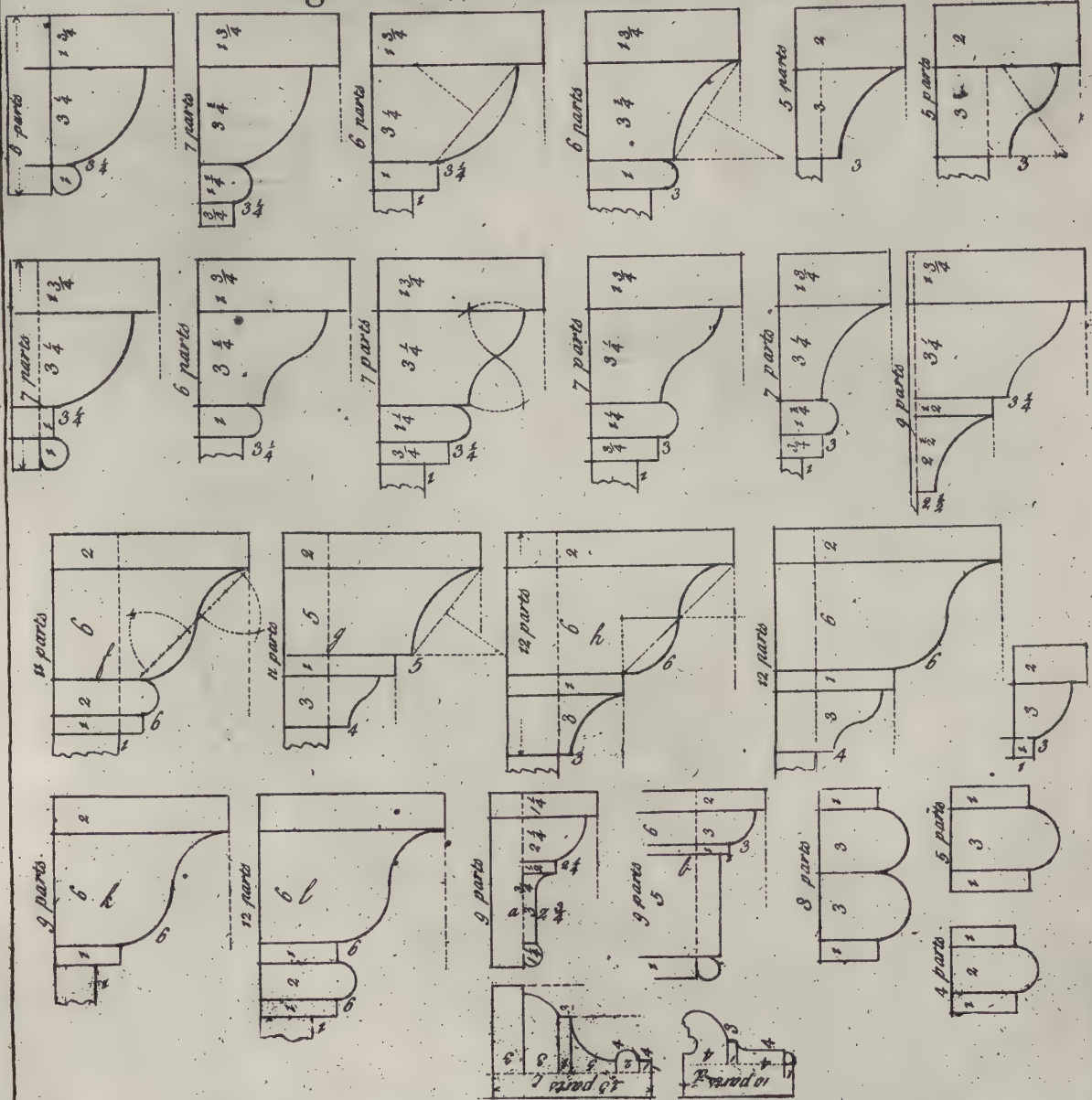
a b one out & each







## Moldings for Doors Windows and Chimneys.



Moldings for Doors, Windows or Chimney pieces & Cornices, with the parts figured in height and projection. When the breadth or Bigness of the Moldings is agreed on which may be from one Inch to three Inches, and them marked a.b.c.d. the breadths may be from three Inches to six Inches, and the Cornices marked f.g.h.i.k.l. the breadths or heights, may be from two Inches to six Inches: the breadth or height to be divided into as many parts as is figured at the Back of Each molding, & dispose the same parts to the projections of Each molding &c.



# WROUGHT IRON PRECEDENT, III

By Gerald K. Geerlings

(EDITOR'S NOTE: *The second article in this series, in the July issue, dealt with the structural forms best suited to the material and the many possibilities in the use of bars of various sections. In this installment the author begins a discussion of wrought iron ornament.*)

IF BUILDING MATERIALS HAD emotions it could readily be forgiven wrought iron if it went into a corner and cried itself into a state of irreparable rust.

Without slighting the abilities of present day designers it can be said with an ample margin of safety that less is known about wrought iron ornament from both historical and practical standpoints than about the adornment of any other building material. When a design cannot be executed in stone because of expense, it may be turned into terra cotta by a note to the modeler not to "under-cut", and, after a little attention to the models the result may come out a very creditable job. But to change from a cast to wrought design, or vice versa, is not such a metamorphosis. To illustrate: ever since the day when Vignola sent his treatise on architectural forms to the presses, the architectural profession has been composing cornices more or less according to formula. The given height is divided into four or five sections, which in turn are reduced to cyma-rectas or-reversas with fillets, facias, modillions, dentils and bed moulds tossed in according to the architectural Hoyle. When a problem presents itself in wrought iron, like a bank screen cornice, from force of habit it is designed from a stock series of forms. Whether these elements can be made on a forge is barely considered. The mere circumstances that the drawing is labeled "wrought iron" and that Vignola has been faithfully followed cannot be expected to make the cornice genuine wrought iron either in letter or in spirit.

No one has forcibly denied Shakespeare's comment that "the devil can quote Scripture for his own purpose". Nevertheless we have had the idea firmly imbedded in the back of our heads that, as a matter of fact, the quotations which could be turned against him would greatly outnumber those for him. In the same ratio it might be possible to industriously hunt up isolated cases to prove that somewhere among the best examples of wrought iron work there has been a Vignola-nese cyma profile hammered into immortality. It may be disturbing, but it is the painful truth nevertheless, that if you would create a design in strict accordance with the best wrought iron precedent and (equally important in these days) keep within the reasonable bounds of cost, most of the good old standby mouldings must be shelved for some mill or foundry to

execute in their respective materials. In plying his craft a wrought iron workman is nothing more than a glorified blacksmith who must work the metal while it is at a glowing heat. When he beats one side of the bar the opposite side is certain to be flattened by its contact with the anvil. An interesting cornice he can make, to be sure, but he would much prefer to do it in the native language of his material rather than force it to stutter foreign idioms. Wrought iron does not talk eloquently in terms of cymas.

One of the greatest difficulties of the wrought iron craftsman is the unbelievable ignorance, in even some of the best offices, as to what wrought iron really is and what it can achieve. Stair railing designs are commonly drawn with twisted bars and classically moulded tops and bases. The entire thing is labeled either "cast" or "wrought iron". One is as correct as the other; yet neither entirely so. The twisted bars could be made in cast iron only with the same difficulty that the classically moulded tops and bases could be wrought. Yet such drawings are blue-printed and issued every day. If the contractor be conscientious he notifies the architect that he can cast the extremities but must have the twisted bars wrought unless he charges an "extra". "All right", says the architect, "make it any way you choose, just so you don't put in an 'extra'." We'll paint the whole thing anyway." Some offices have an entire design wrought at considerable expense, only to finally paint the finished product to simulate bronze. It is like importing (white) Carrara marble, then staining it ochre and drilling holes into it in order to imitate travertine. Why the effort to make one material appear like another when it finally looks like neither?

When the architect elects to use wrought iron it should be for very definite reasons. He should know it is not a substitute for another material, but distinctive for its own qualities. As he embarks on his initial wrought iron experience, it augurs well if he takes himself good-naturedly in hand and soliloquizes, "Old Timer, we've been doing this dried out, formula architecture about long enough! How about going outside the pale of hackneyed forms, by making color, texture and craftsmanship work for us this trip? Wrought iron has all the variations in color that lie between jet-black and silver. Its high-lights change like those of panne velvet when you turn it. Its texture has a human quality, full of ups and downs. We will inject a little humor



# PENCIL POINTS

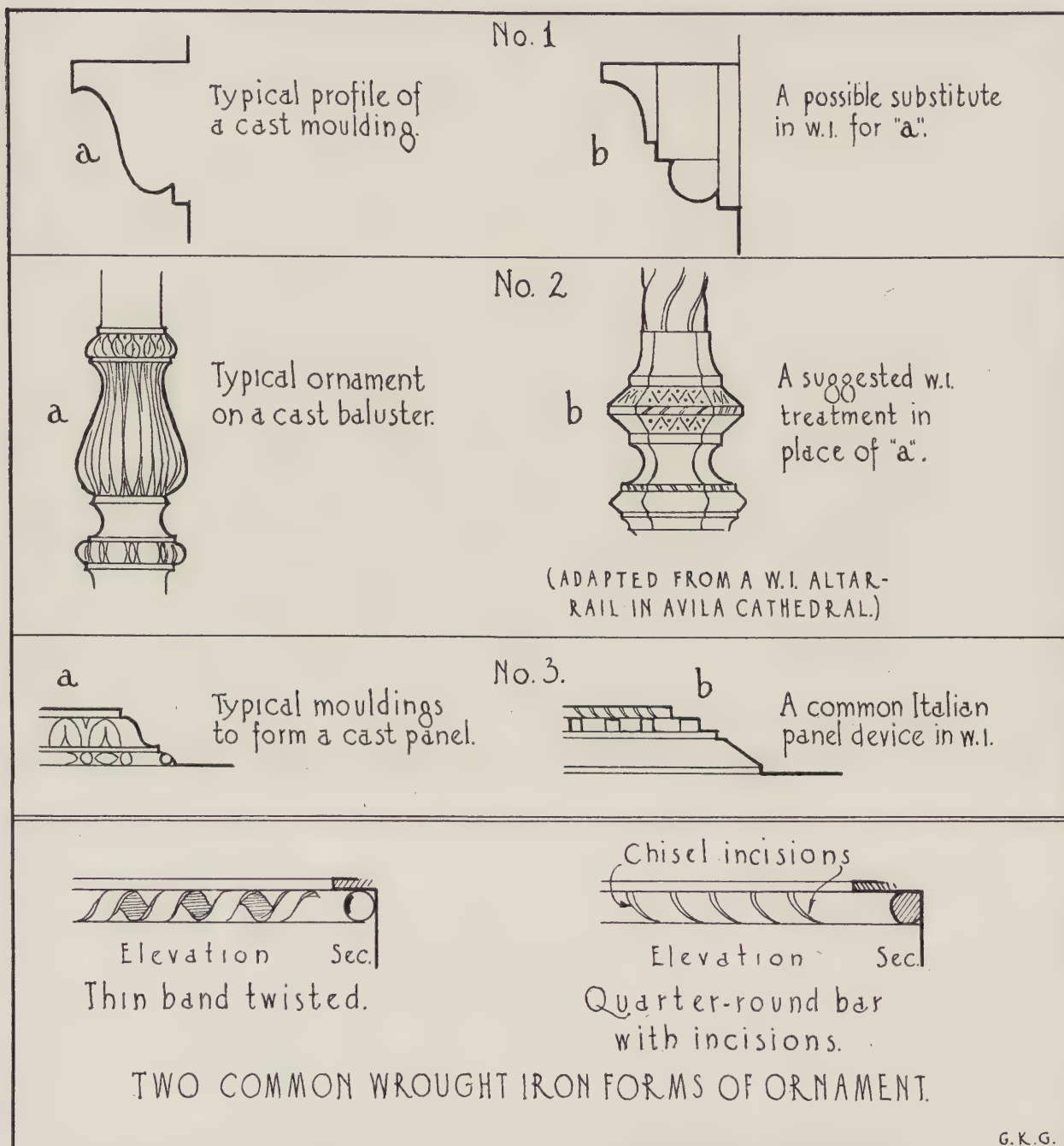


FIGURE I. CONTRASTS OF CAST IRON WITH WROUGHT IRON

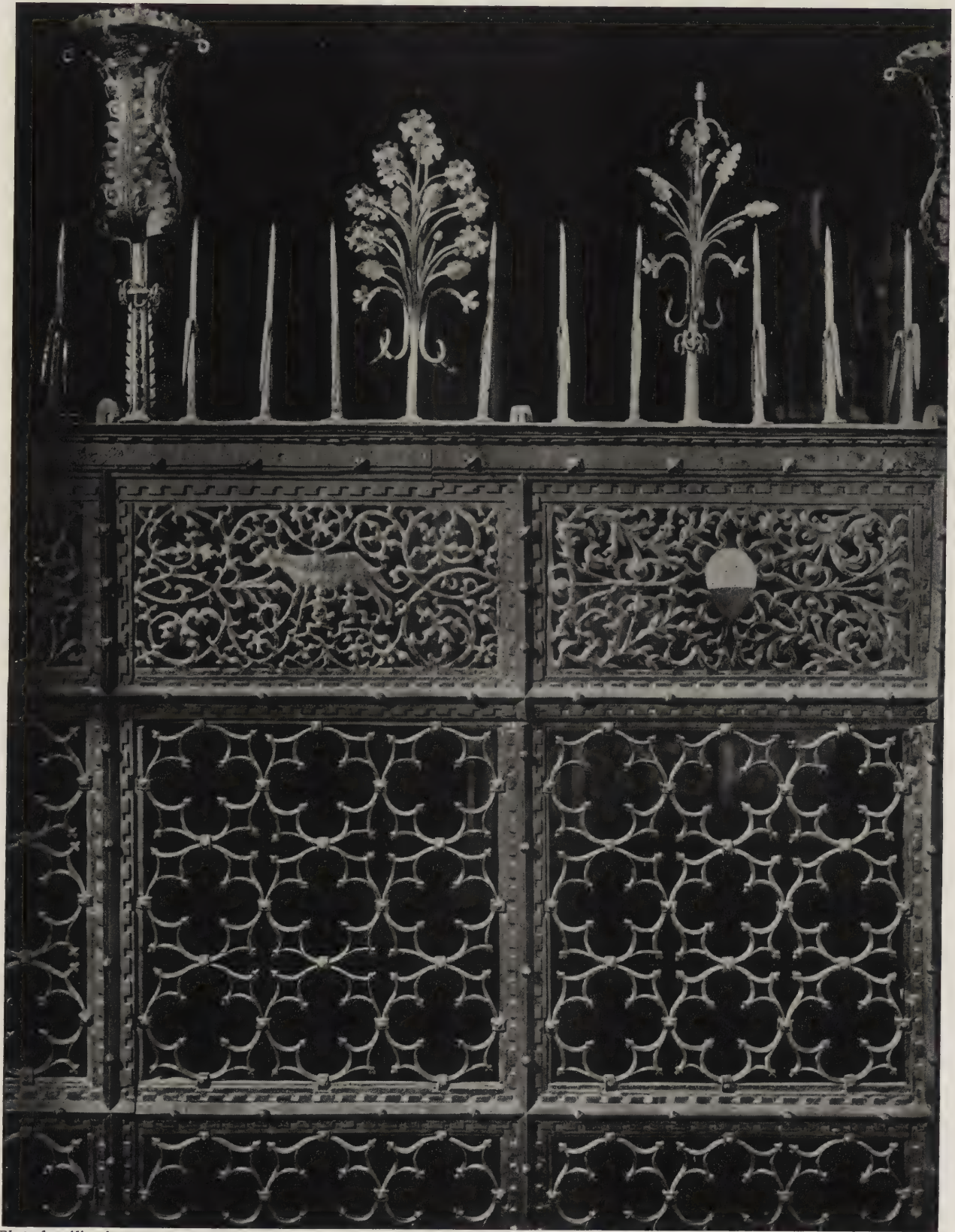
into this sober old problem with some funny little doo-dangle wrought iron heads of three-legged snakes. When the finished product leaves the forge we know that every molecule will not be rigidly held in leash as in a decorous cast article. But what of it—a little play is what we are after. Variation and imagination this time! After the wrought iron has been on the job a year or so we expect it to show a slight sign of rust here and there on exterior work. When that happens no doubt the owner will either die of apoplexy or he will sue us for breach of

confidence in introducing a bogus material which the painter forgot to paint and which consequently rusted.

"If the owner survives the initial shock with his reason not too badly shattered, we will explain that the rust gives an added, pitted texture which is an advantage when some steel wool or emery cloth has polished off the golden glow. A thin coat of wax mixed with a little boiled linseed oil rubbed on the iron will prevent further rusting. Not enough oil to ruin anyone's clothes of course, but sufficient to



WROUGHT IRON PRECEDENT



*Photo by Alinari*

DETAIL OF WROUGHT IRON GRILLE IN PALAZZO DELLA SIGNORIA, SIENA.

*An unusually fine example of Italian craftsmanship at its best, in repeating-motif, cornice, retroussée panels and cresting.*



forestall the heinous rust as long as a coat of paint would anyway. If we are lucky to explain matters that far we may be able to save up enough breath to add that taking care of wrought iron as it should be done is not as expensive as veneering cast iron with paint which costs far more than a little wax".

That may be a long-winded, and rather unreasonable supposition. The rare cases where wrought iron is genuinely used and appreciated for its color and texture, conclusively prove that the term "wrought iron" is but little understood, and the actual product even less. A prominent lighting engineer of New York City recently influenced a client against its use for lighting fixtures in a covered arcade because of the deleterious effect of *smoke*, although the architect had approved the fixtures and material. Europe has not gone without smoke, rain, fumes, and atmospheric conditions identical with ours, yet the wrought iron classics over there still seem to survive with vigorous health.

If the finished product must be painted there is but little sense in having it wrought. Making a cast iron design will be cheaper, and under a coat of paint the chief virtues of the wrought product, color and texture, are quite wasted. The client had better be saved the expense. The advantages in having a wrought product are presupposed to be sufficiently valuable to the general effect of the design as to be worth the extra cost and labor over and above a mechanical casting. There will be variety in the surfacing from being beaten on the anvil, differences in color due to the high lights where slightly raised surfaces have been made shiny with emery cloth rubbing, and lack of general uniformity because of the manner in which each part is separately fabricated under varying conditions. What, then, can be the good in submerging the chief value of the work under several good thick coats of



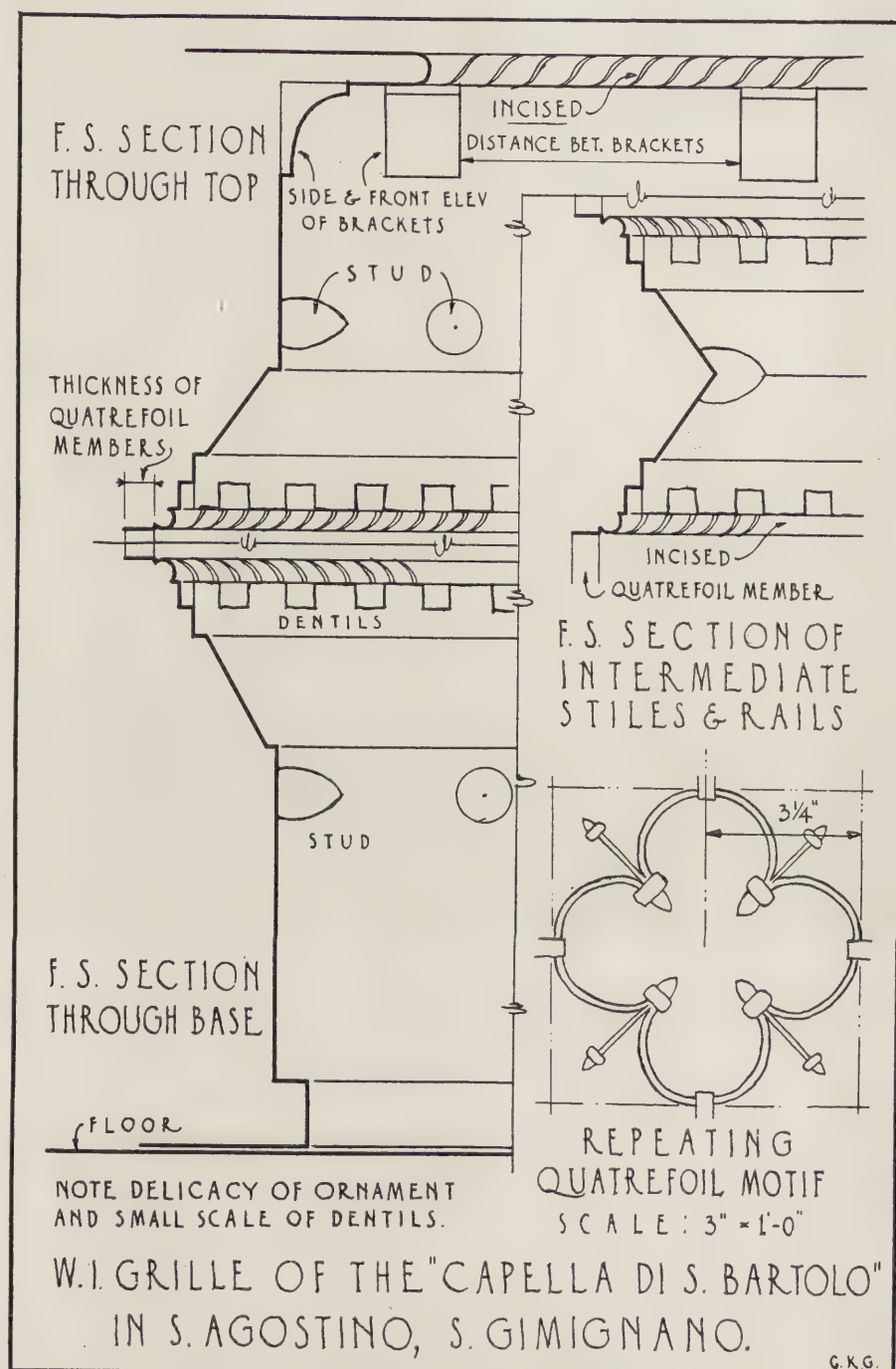
Photo by Alinari

WROUGHT IRON SCREEN OF THE "CAPELLA DI S. BARTOLO".  
CHURCH OF S. AGOSTINO, SAN GIMIGNANO

paint? The idea of painting every bit of iron work is a splendid tribute to the ability of the advertising agents for the paint manufacturers, but it does no great amount of credit to the architects. If we are to pursue the wrought iron painting idea to some similar conclusions we shall soon get to the point of filling up travertine holes with putty and varnishing it over in order to make it more impervious and sanitary. Utterly absurd, you will say, because we admire and select travertine for those very holes!



# WROUGHT IRON PRECEDENT



DETAILS OF WROUGHT IRON SCREEN

SEE PHOTOGRAPH ON OPPOSITE PAGE

Exactly—wrought iron is supposedly chosen also for that very texture which paint would nullify.

To return to the consideration of the cornice members, or for that matter, the subject of what the wrought iron vocabulary has to offer instead of such accepted mouldings as the cyma recta and cyma reversa: No. 1-a of Fig. I illustrates the simplest wrought iron approach to the latter. To pound out a cyma for any great length could be done only with the most devoted endeavor. Visualize the process of

heating only about eight inches at a time, manipulating it on the anvil, and with a series of swages, chisels and sundry tools, attempting to approximate the desired profile with its double curve. Assuming this to be satisfactorily done, it would be no mean task to complete another unit of the same length with the identical profile. The results in beating out a long, double-curved moulding would probably appear haphazard and clumsy, even with the greatest care to keep the lines running true. However, if the effect of a double-curved moulding is felt to be indispensable, profile 1-b (in the same figure) is suggested as a substitute. The cove can be pounded from a square bar, first flattened one side at an angle of 45 degrees and then introducing the cove by means of a swage. The quarter-round can also be made from a square bar by rounding one of the edges when hot. This diagram, showing how a usual moulding for a cast material can be approached, is not meant to convey the impression that where one would ordinarily use a double-curved moulding in a cast design, that No. 1 in Fig. I should be substituted in wrought iron instead. It is principally shown here to illustrate the forms natural to wrought iron.

In No. 2, Fig. I, "a" represents one of many common devices at the necking, middle or base of a mis-called "wrought iron" baluster. In bronze or cast iron it means a normal casting; in wrought iron it demands abnormal craftsmanship and expense. The same feature translated into a more characteristically wrought form is shown alongside at "b". What is here sketched is merely one of hundreds of possibilities, but it does stay within the natural achievements of anvil, swages, chisels and hammer.

A disinterested observer in architectural fashions

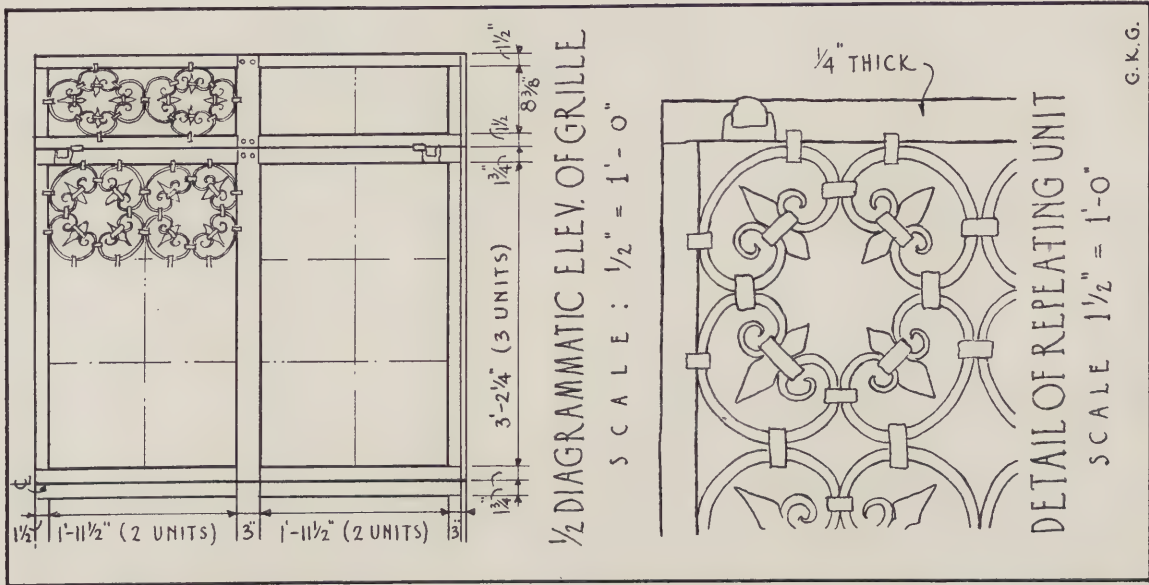




Photo by Alinari

WROUGHT IRON GRILLE IN CAPELLA DEL SACRAMENTO, BASILICA DI S. MARCO, VENICE.

*A good example of a favorite Venetian Motif.*





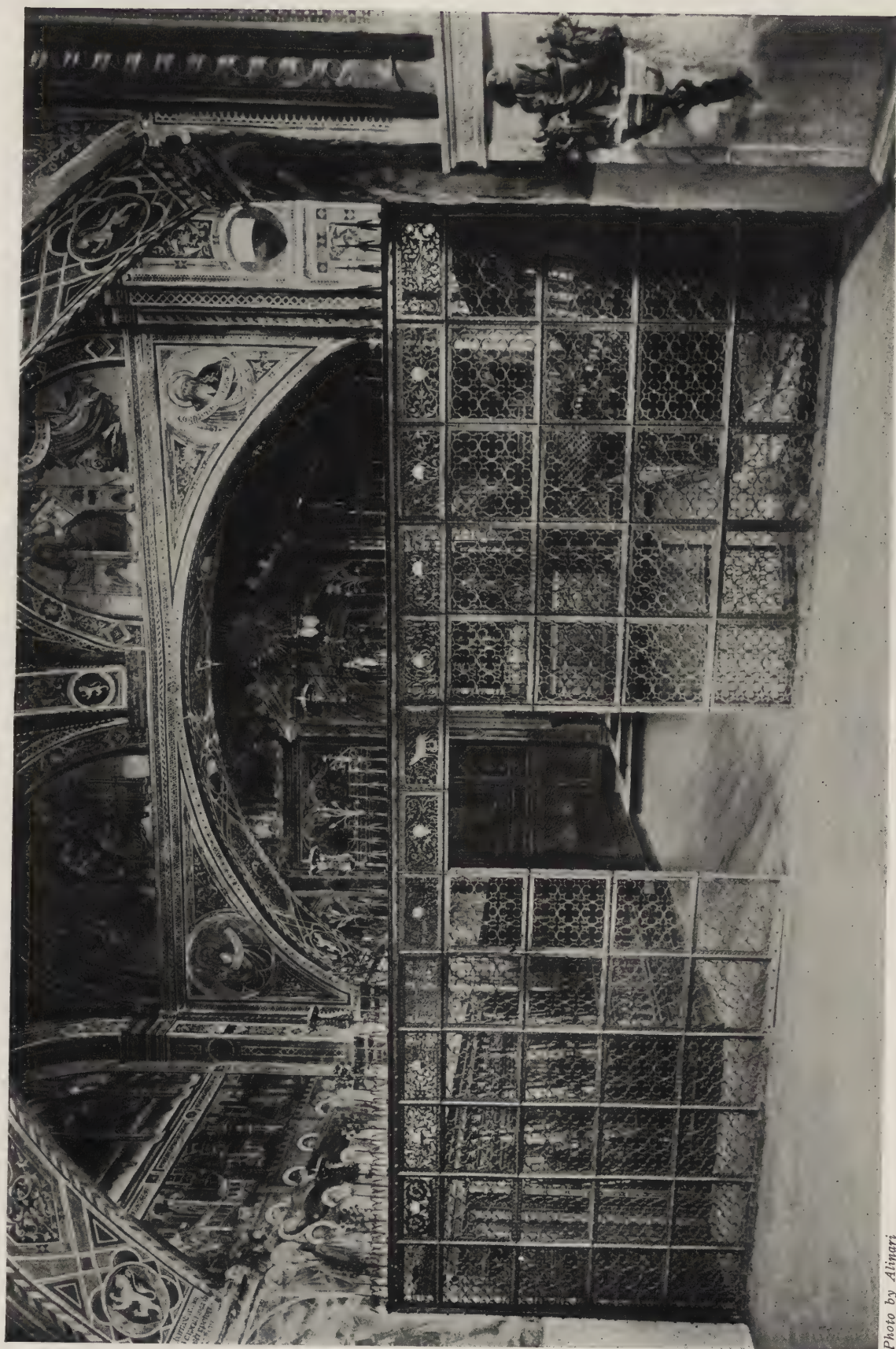


Photo by Alinari

WROUGHT IRON GRILLE IN PALAZZO DELLA SIGNORIA, SIENA.  
*No series of photographs on wrought iron would be complete without this rightly revered and respected Italian classic.*

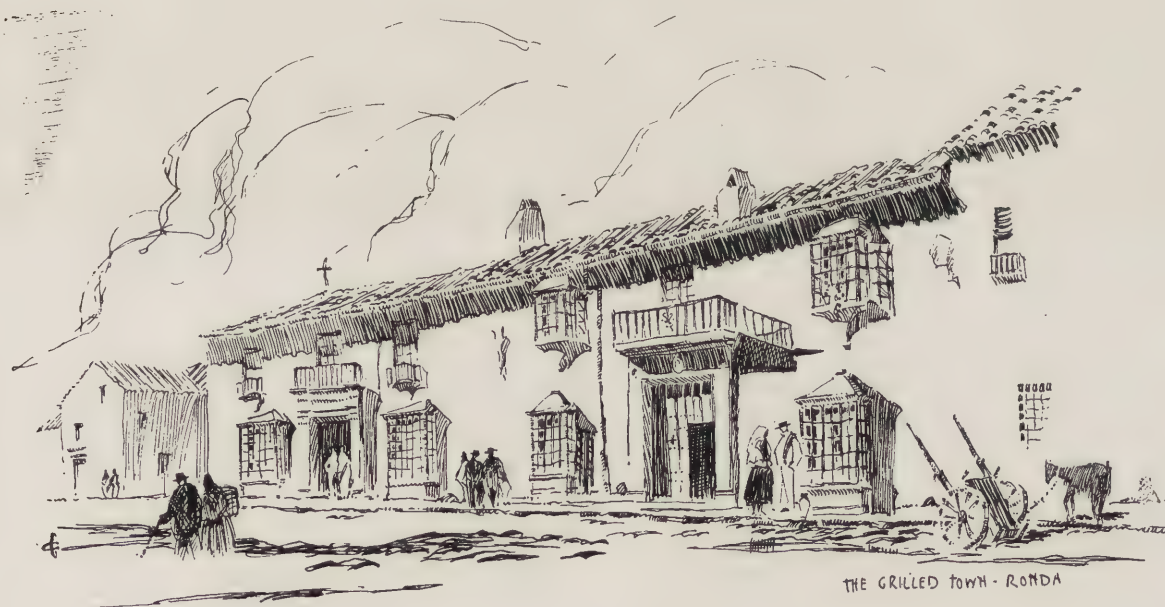


would probably decide that the present mode dictated paneled surfaces where ever possible. If panels it must be, No. 3 in Fig. I indicates the relative difference between the usual cast form and a well known Italian wrought stile, such as frequently were employed in the over-all pattern grilles of Florence and Siena. (See P. 547). In Italian work the dentil established itself as an accredited wrought iron expression to enhance stiles and rails. It is needless to mention that there is not the nicety in mechanically accurate spacing as there would be in a material like stone or clay. Since wrought iron dentils are made by cutting out rectangles along the edge of a plate while it is red hot, it is natural that less discipline exists among the denticular ranks than the orthodox eye is accustomed to see.

The architect who has not previously used wrought iron does well to inform himself concern-

ing good craftsmanship in the execution of the work. To insist too strenuously on a mechanically perfect result, devoid of some natural irregularities, would be to change the very nature of wrought iron. On the other hand, there are craftsmen who lean over backward in being "arty" at the expense of making the defenseless iron look like a battered piece of hand-adzed pine. Of its own accord the iron will show that it has been worked on; it should never be needlessly butchered. Distinctive iron work has not been obviously hammered to advertise that it is "hand made". A true craftsman does his work in a simple, straight-forward manner, devoid of spurious nicks and scars. But more later about the "hammer marks" so much clamored for.

EDITOR'S NOTE: The next article of this series will continue the subject of wrought iron ornament, discussing "retroussée" work, chisel mark decoration, various textures, etc.



PEN AND INK SKETCH BY GERALD K. GEERLINGS  
"THE GRILLED TOWN—RONDA"



PLATE XXX

VOLUME VII

NUMBER 9

*Another drawing in pencil by A. Thornton Bishop shows his command over the direct broad stroke technique. The original was made on cameo paper which was afterwards treated with fixatif to produce a warm yellowish tone.*





PENCIL SKETCH BY A. THORNTON BISHOP  
OLD TOWN GATE, COCA, SPAIN



PLATE XXXI

VOLUME VII

NUMBER 9

*This reproduction of one of a series of Twenty Lithographs of Old France by Samuel V. Chamberlain shows again the facile technique which distinguishes the work of this young artist. The halftone plate cannot, unfortunately, give a completely faithful idea of the luminosity of the original which was printed on a creamy hand made French paper.*





LITHOGRAPH BY SAMUEL V. CHAMBERLAIN

LA MAISON DU SAUMON, CHARTRES



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





WATER COLOR RENDERING BY J. FLOYD YEWELL

*Size of Original 20¼" x 27½"*

*First Prize House in Country Life Competition 1924*

*Cookman Cass, Architect*





WATER COLOR RENDERING BY NELSON BREED

*Size of Original 12" x 15½"*

*Le Pavillon du Barry at Louveciennes*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





SCREEN PAINTED BY CARLO CIAMPAGLIA  
"THE CHASE"



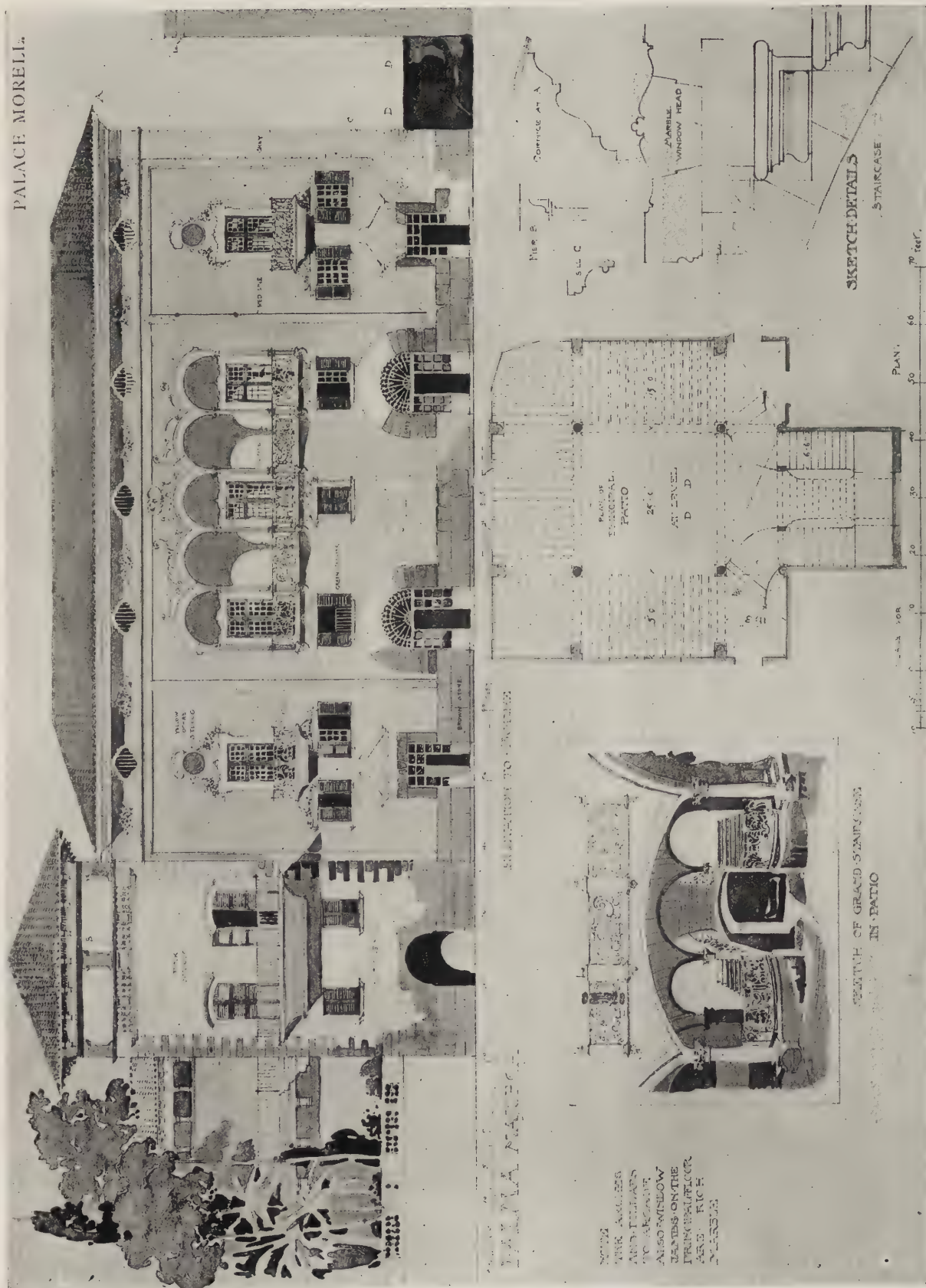
PLATE XXXII

VOLUME VII

NUMBER 9

*It is unfortunate that we are unable to present the screen reproduced on the other side of this sheet in full color. The sky is a light, warm yellow and the trees are a greenish orange in the lights with shadows of a rather brilliant blue. The distant hills are purple, the whole being held together by the greens, yellows and violet of the foreground. The three medallions showing animals of the land, fish of the sea and birds of the air are on a blue back ground with reddish ornaments. The screen is 5 feet 4 inches high by 4 feet 8 inches wide.*





RENAISSANCE ARCHITECTURE AND ORNAMENT IN SPAIN  
A PLATE FROM THE WORK BY ANDREW N. PRENTICE



PLATE XXXIII

VOLUME VII

NUMBER 9

*The Palace Morell is a large mansion situated on the Borne, the principal promenade of the city of Palma. It is remarkable for the elegance of its lines, and for its stucco decoration, adorned with reliefs, and colored by an Italian artist, Antonio Soldatti. This is perhaps the only palace in Palma which retains its original decoration: most of the other palaces having unfortunately been white-washed in recent years. The scroll ornament over the marble Loggia, as well as the square lines framing in the wall surface, are painted on the surface of the stucco, and are not so accentuated as they appear to be from the reproduction of the drawing. The walls of this Loggia are painted white, and the roof decorated with floral designs in color. The open attic, and the deep stone courses of the plinth, continued around the circular doorways, are painted a lavender grey color. The main cornice is marble. A small sketch is given of the entrance patio with its charming ironwork and staircase, beyond which is a smaller patio connecting the kitchen offices.*



# QUIET BUILDINGS

*By Vern O. Knudsen, Ph.D.*

HUMAN EFFICIENCY AND COMFORT suffer immeasurably from the noises incident to modern urban life. Recently a nation-wide effort has been launched to relieve the public from this noise nuisance. Psychologists and physicians, working co-operatively, are determining the harmful effects of noise, while physicists and acoustical engineers are devising means for reducing and insulating noise. Surely the architect has an important responsibility in this noise-reducing program. He should be alert to every development in building design or materials which will help to secure quiet in buildings.

Beside interfering with speech and all other useful sounds, noise wears severely upon the nervous system, resulting in lowered mental productivity and, probably, also in a shortened tenure of life. It perhaps will be difficult to ascertain just what injury and loss of efficiency noise imposes upon us; undoubtedly certain individuals are affected by it less than others, but there is abundant evidence that all of us share the injuries of this annoyance. Everyone is interested in reducing and eliminating unnecessary noises. It is a problem that calls for thorough effort and cooperation. When we contemplate how successfully the noise of the gas engine has been eliminated in the modern automobile, we have good reason to anticipate the suppression of other disturbing noises.

What can the architect do toward the solution of this problem? He can contribute very substantially to the attainment of quiet in buildings. Not only can he effectively insulate outside noises by using heavy non-conducting walls and partitions, but he also can greatly reduce both outside and inside noises by using sound absorptive materials for the interiors of all buildings where noise is an annoyance. For many years physicists and others have advocated the use of such sound absorptive materials for the interiors of auditoriums, offices, hospitals and other public buildings. In articles which have appeared in architectural journals and elsewhere, it has been pointed out that the installation of suitable sound-absorbing material in a room is capable of reducing the intensity of noises in that room as much as ten-to-fifteen-fold.

This means of reducing noises is increasingly utilized by many architects who design public buildings. Hundreds of buildings have been constructed during the past two or three years in which the use of sound absorptive materials has provided unusually quiet rooms. These highly satisfactory results are leading to a greatly extended use of sound absorptive materials. For example, nearly all pub-

lic buildings now under construction in Southern California are using, or planning to use, sound absorptive materials for the walls and ceiling of the rooms in which noise is a disturbing factor. The Museum of History, Science and Art, and the Patriotic Hall, both in Los Angeles, and both designed by the Allied Architects' Association, have the walls and ceiling of most rooms treated with a new absorptive plaster, recently developed. These rooms have times of reverberation ranging from 1.0 to 1.75 seconds. If hard plaster had been used instead of the acoustic plaster, the times of reverberation in the same rooms would have ranged from 5.0 to 8.0 seconds. Since the intensity of any sound in a room is proportional to the time of reverberation in that room, the use of this absorptive plaster in these rooms has diminished the intensity of any noises in the rooms at least five-fold. This is a very appreciable reduction in the loudness of the noises in these rooms, and as a consequence the quiet environment in the rooms of these two buildings is most satisfactory.

Scores of other instances could be cited in which hairfelt and other sound absorptive materials have provided quiet conditions in offices, hospitals, school corridors, and many other public and private buildings. The choice of the particular acoustic material depends largely upon structural and decorative requirements of the room. For small rooms such materials should be chosen, and used in such amounts, as will reduce the time of reverberation to one second or less.

The increasing demand for sound absorptive materials which will meet acoustic and other requirements, is already recognized by many manufacturers of building materials. Especially, manufacturers and distributors of plaster are anticipating this future demand and are attempting to develop sound-absorptive plasters.

Absorptive plasters differ from the usual lime and gypsum plasters chiefly in the degree of porosity. Ordinary plaster is a compact, solid composition of its ingredients. It is almost impervious to the sound waves—condensations and rarefactions of the air—which impinge against its surface, and, since the impacts of the air molecules against its hard surface are highly elastic, the impinging sound waves are reflected with approximately ninety-seven per cent. of their full incident intensity.

Absorptive plaster, on the other hand, is a porous composition of its ingredients. In many instances it has a density of only fifty per cent. of the solid material from which it is composed; in other words,



## PENCIL POINTS

there is fifty per cent. of voids within the plaster. If these voids consist of pores penetrating deeply into the plaster, the sound waves penetrate into these pores, and, by numerous encounters of the agitated air molecules against the walls of these pores, an appreciable fraction of the incident sound wave is absorbed before it is reflected.

Whereas, in hard plasters, only two or three per cent. of the incident sound wave is absorbed at each reflection, in porous plasters, as much as twenty or thirty per cent is absorbed at each reflection. Hence these porous plasters may be approximately ten times as absorptive as ordinary plaster.

Several satisfactory acoustic plasters have been developed during the past two or three years. Prior to this time two plastic materials were developed which demonstrated in a most gratifying manner the effectiveness of such materials for the reduction of reverberation and noise in buildings.

One of the most recent acoustic plasters—developed by a western concern—makes application of a rather novel feature. The porosity is produced principally by mixing a compound with the plaster, which, by its reaction with the water in the wet mixture, evolves gas. The evolution of gas continues during the initial "setting" of the plaster, leaving the finished plaster surface with a high degree of porosity. The degree of porosity, and therefore the absorption coefficient of the plaster, can be varied within certain limits. Absorption coefficients between these limits can be extended considerably. Recent laboratory tests upon 108 square feet of this plaster—six panels, each three by six feet, with the plaster applied to a thickness of three-fourths of an

inch—give the following coefficients of sound absorption for notes of different pitch:

C2 (128 d.v.)	.14
C3 (256 d.v.)	.17
C4 (512 d.v.)	.20
C5 (1024 d.v.)	.25
C6 (2048 d.v.)	.36

A more practical test was conducted in the new Los Angeles Elks' Lodge Room, which has a volume of 325,000 cubic feet and in which nearly 14,000 square feet of this absorptive plaster had been applied to the walls to an average thickness of five-eighths of an inch. This test gave the following coefficients of sound absorption:

C2 (128 d.v.)	.132
C3 (256 d.v.)	.158
C4 (512 d.v.)	.168
C5 (1024 d.v.)	.206
C6 (2048 d.v.)	.325

This same plaster has been used in a number of church auditoriums and also in public offices, and each instance has been wholly satisfactory.

Besides possessing its sound absorptive properties, so essential to good acoustics, it, like other porous materials, is a good heat and cold insulator. It is a substantial structural material, is not friable and will stand considerable abrasion. Further, it can be finished in a variety of decorative surfaces.

The recent development of sound absorptive materials, and especially sound absorptive plasters, has contributed immensely to the problem of constructing quiet buildings. The future universal use of such materials in nearly all public buildings, and even in many private buildings, is amply demonstrated by the enthusiasm of those who have used these materials.



AN AUDITORIUM SUCCESSFULLY TREATED WITH ACOUSTIC PLASTER

LOS ANGELES ELKS' CLUB LODGE ROOM

*Curlett and Deelman, Architects*





FIGURE 1, THE CAPE

## THE DESIGN OF LITURGICAL VESTMENTS

*By Walter A. de Sager*

BELIEVING THAT draftsmen and designers can derive much pleasure from the design of ecclesiastical vestments, the author has prepared this article for PENCIL POINTS to whet the appetite for further study in this fertile, but at present sadly neglected, field of decorative art.

To offset the common impression that this art consists of a meaningless, though perhaps pleasing, use of tinsel and colored textiles, it is advisable to study its purpose and development. Ecclesiastical vestments are of ancient lineage and doubtless were used as soon as man gave expression to religious thought. From the very nature of this element in worship, symbolic form and the use of appropriate materials and sincere craftsmanship soon became essentials in their design, and increased in purpose and beauty up to that remarkable period of Christian Faith — the Thirteenth Century. The Renaissance, in this as in other arts, stressed the borrowed classic beauty of form and

color, and symbolism soon fell by the wayside.

In the present Gothic revival, or had I not better say the inspired awakening to that which makes Gothic beauty, one keenly feels the need for making the arts associated with architecture worthy of such association. To this end the vestments shown in the accompanying illustrations have been designed by the writer.

The various types of vestment, having a fixed relation to the different parts of a religious service, should primarily contribute by their design and color towards the purpose of the service. In an intelligent community, it is not sufficient to depend upon an array of color and tinsel for priestly robes any more than a carelessly designed Church is worthy of sheltering religious service.

Symbolism is more important even than the art of composition, as it represents to the beholder that which could otherwise not be expressed. In the revival of this art, perhaps the first problem

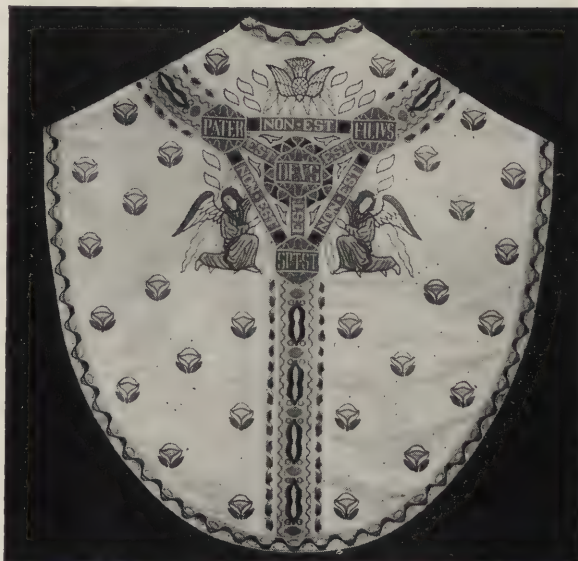
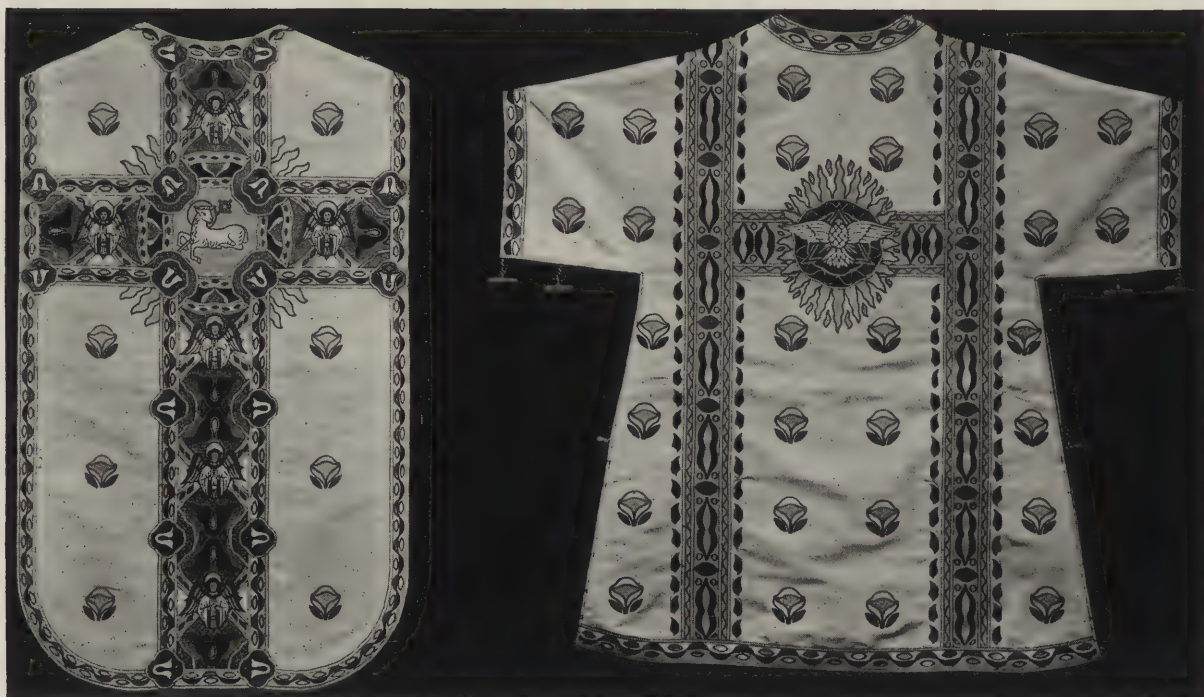


FIGURE 2, GOTHIC CHASUBLE





FIGURES 3 AND 4, ROMAN CHASUBLE AND DALMATIC

is to learn to abandon the use of naturalistic figures, and the selection of inappropriate fabrics. In composing the design of vestments, there should be taken into account the Church in which they are to be used, as they are as much a part of the scale, design and color scheme, as are the architectural features. In fact, the priest, being the center of attraction by the very nature of his office, should be so robed that his very appearance shall have the most harmonious relation to the altar.

As vestments are frequently presented to a Church by members of the congregation, these gifts commonly display ignorance of the art. The illustrations set forth what is known to be appropriate for various types of vestment, and may serve to aid the designer who essays to enter this field of art. It is unfortunate that these could not be presented in color, but they show to a marked degree a careful study of symbolism in ritual and appropriate design. I would suggest that those who may be called upon to design vestments, and who may be ignorant of the art, consult the clergyman of the Church for which they are intended so as to insure an intelligent use of the forms of each kind of vestment and the most appropriate symbols.

Some clergymen of ripe scholarship and artistic insight have long recognized the necessity of abandoning meaningless vestments and replacing them with others rich in symbolism and of good design. By means of lectures and other contacts with their fellows they have done their best in this direction, and with some measure of success.

A study of ancient vestments in the Museums would be of some help, but the designer should be warned that most of the Museum examples are of the late Renaissance, and commonly have the faults which are mentioned in the early paragraphs of this article. Perhaps a more fertile field for study would be the early paintings or engravings. The principal thing to be borne in mind is that vestments



FIGURE 5, BENEDICTION VELLUM

should be designed for the particular Church for which they are to be used, as was the case in the early Christian Churches, and in fact in the religious ceremonies of all faiths where the service depends partly upon the aesthetic to inspire the participants.

In this outline of the subject I can not hope to touch upon the historical development of all the various forms of vestments, but a list of the various vestments and their individual significance may not

(Continued on Page 564)





# W H I T T L I N G S

## THE NEW YORK ARCHITECTURAL CLUB, INC.

ACTIVITIES IN CLUB MATTERS have been practically at a stand-still for the past few weeks, due in a large measure to the usual summer problem with which almost everyone is concerned, namely, trying to keep cool. A large part of the membership was away on vacation, and that accounts also for some of the absentees. However with all that, quite a few of the men have been dropping in for a chat and to look things over.

The alterations to the club's quarters are now practically completed. The Atelier and the Life Class are almost completely equipped, and the only problem of a major character now is the matter of furniture for the club lounge, the entrance vestibule and the conference room. This represents some difficulty, inasmuch as it means the outlay of several thousands of dollars. It is not the intention of the Board to make the place over luxurious, the desire being to create an atmosphere of restful comfort, coupled with simple beauty.

The furniture should be of durable quality, and this, considered with the quantity required, will range in cost between \$3,000 and \$5,000. For a new organization with very low membership dues, this is somewhat of a problem to solve. Many and various suggestions have been advanced, all of which boiled down to the idea of raising the amount of membership dues. That however would defeat the ideals and purpose of the very foundation of the organization. It's *raison d'être* as it were.

We don't want to make this an exclusive club to be enjoyed only by the few who can afford to pay large dues. There are plenty of organizations of that type in existence now. This brings to mind the idea, that here is as fine an opportunity as ever existed, for one or more modern "Good Samaritans" to come along and lift a part or all of this burden in an excellent cause.

Our ideal is to create a pleasant meeting place, where the rank and file of the Architectural and allied professions can come in contact with one another, as well as with the rank and file of the builders' employees and representatives, and through the medium of friendly intercourse and discussion, obtain a better understanding of each other and of our profession in general.

It is being impressed on us more that a good understanding creates fairness and toleration all around, and the result is a good job is turned out. Whereas lack of understanding brings about dissension with, very often, dire results for the job. The attitude of 1890 may, or may not, have been the right feeling to have. The present day proves that our various interests are so intertwined that it's best to consider our rights and wrongs in a broad enough manner to obtain the best possible ultimate result, which is of equally vital interest to the architect, the engineer, the builder, and the owner.

Entire disregard for the other fellow's view, vain aloofness and exclusion will certainly not bring about the desired results, but fair consideration and discussion of our qualities and rights most certainly will. Therefore who will say that we are on the wrong track? And how can the various elements be brought together if we have prohibitive membership dues?

It is not to be inferred from the foregoing that we contemplate the establishment of a builders' and architects' forum, a sort of court of justice, or a weeping sisters circle whereat all concerned may unload their actual or fancied burdens of woe. This is fundamentally a club organized for pleasure and recreation, and as such we will try to maintain it, but we think that it could still have, and should have a scope with ideas and ideals that go a little bit deeper than mere frivolous amusement, since it is given that intelligent man plays while he works, and works while he plays. To be a success, it requires what the poets might call a soul. When railroaders get together they invariably begin pushing mental locomotives around. When

Greek meets Greek, they may, or may not, open a restaurant. And by the same token when architect meets architect, and there is a builder or two thrown in, *try and prevent shop talk and argument.*

True, there should be a certain amount of reserve between the elements for the good of the game. But this will probably always take care of itself automatically through pride of craftsmanship. The architect will probably always retain a superiority complex where the allied trades and professions are concerned, while to a certain extent the builder perhaps will mentally consider the architect a poor fish who doesn't know enough to lay two bricks flat on one another.

*Note:*—This further convinces us, that the "Good Samaritan" idea mentioned above, is a pretty good one.

Mr. W. E. Herrick, the Massier of our Atelier, asked us to remind our interested friends that the Beaux-Arts season is about to open, and to kindly drop around more often, now that the dog days of Summer are practically over. Our outfit only managed to get into the swim about the end of the last season, but made a very good showing, and we are proud of them, having pulled down several prizes, in the form of first mentions, etc. We look forward to some fine work being done this session.

## BOWLING LEAGUE DIVISION

The Architectural Bowling League of New York is beginning to straighten out its kinks and is polishing the heavy artillery, preparatory to opening the season. If this, the 20th or 21st year (we seem to have lost track of the number) of its existence is as successful as last year, we will feel tolerably well satisfied.

The league will bowl on the fourth deck of Uncle Joe Thum's amusement ship again this year, and a good time is looked forward to as usual. The massacre begins on September 30th and will continue on every Thursday evening for 30 consecutive Thursdays, exempting Thanksgiving and Yom Kippur.

We still welcome with wide open arms any of our friends and fellow citizens who wish to drop in on bowling nights, and see some bowling what is bowling (or get a darned good alibi). We must modestly admit that we still are the king pins of bowling among the architects. Anyway that's our story and we'll stick to it, even if the hinterland drops into the Great Lakes.—Henry Sasch, *Secretary*, c/o McKenzie, Voorhees & Gmelin, 101 Park Ave. New York, N. Y.

*Adenda No. 1*

We still cherish the "Good Samaritan" clause as specified above, or equal.

## A BRICK IS A BRICK!

AT THE LAST MEETING of the American Society for Testing Materials at Atlantic City, Committee C-3, which is the brick committee of the Society, voted to accept the following definition:

**BRICK.** A structural unit rectangular in shape and made of burned clays unless designated by a prefix indicating another material.

*Note.* As through centuries of use a brick has been an object of clay, the term "brick" if used without a qualifying adjective is understood, in the present state of the art, to mean a unit of burned clay. Bricks are usually solid, about 8" x 3-3/4" x 2-1/4".

Hereafter a brick will be a brick, just as it has been for many centuries. If it is not made of burned clay it is not a brick, but is a synthetic product.

The establishment by the A. S. T. M. of a technical definition to correspond with the long-standing popular definition is intended to help in preventing substitution and lowering of standards in construction.



# RICHARD K. WEBEL APPOINTED FELLOW IN LANDSCAPE ARCHITECTURE

THE AMERICAN ACADEMY IN ROME has announced the appointment of Richard K. Webel of Long Beach, L. I., N. Y., as Fellow in landscape architecture for three years, beginning next October 1st. Mr. Webel is 26 years of age and a graduate of Harvard University with the degrees of B. S. and M. L. A. The stipend is \$1,300 a year with residence provided at the Academy. The Garden Club of America supports this Fellowship at the Academy.

There were four final competitors, selected by means of a preliminary competition from a large number of applicants. The competitors were allowed four weeks to interpret their problem, "A Memorial Park to Citizens who Fought in the World War."

Honorable Mention was given to Carol Fulkerson and Thomas D. Price of Harvard, and R. A. Ogan of Iowa State College.

The members of the jury of award were Ferruccio Vitale, *Chairman*, Albert D. Taylor, Charles N. Lowrie, Arthur F. Brinckerhoff and Arthur A. Shurtleff.

## ARCHITECTURAL CLUBS!

PLEASE SEND NEWS of your plans and Fall activities to PENCIL POINTS, 19 East 24th St. New York.



SKETCH BY G. M. PEEK  
*Burgos Cathedral*

# THE DESIGN OF LITURGICAL VESTMENTS

(Continued From Page 562)

be amiss, and I will end with such a list, an understanding of which will be aided by referring to the illustrations.

1. Cape.—This vestment is used in the celebration of high mass and benediction. Especially noticeable is the composition of the hood into which is incorporated a composition of the Trinity, each standing alone and yet pointing toward the central "Deus" in which they are one.
2. A Gothic or Medieval Chasuble has a central motif of the same composition. The Trinity is inspired by the Holy Ghost, supported by angels. The free folds of the old, wide, bell-like chasuble provide an appearance of great dignity and offer an artist or architect a far better subject for decoration than:
3. The Roman Chasuble. This was introduced during the anti-reformation about the middle of the 16th Century and hangs in a stiff and awkward fashion, more like a couple of boards than a piece of drapery. However, either may be used according to the preference of the priest.
4. Dalmatics are used by the two deacons in the celebration of high mass.
5. Benediction Vellum. This has been folded over at each end so that only three-fifths of its actual width is shown.

## PERSONALS

FREDERIC A. FLETCHER, ARCHITECT, has removed his offices to 13 West Franklin St., Baltimore, Md.

ELLERBE AND COMPANY, ARCHITECTS, of Saint Paul, Minn., have opened a branch office in Rochester, Minn.

JOSEPH B. SIMPSON, ARCHITECT, has opened an office in the Montgomery Building, Spartanburg, South Carolina.

JOHN H. LIEBAU, has opened an office for the practice of architecture and engineering at 167 Main Street, Hackensack, N. J.

S. M. CATHCART has opened an office for the practice of architecture at Anderson, S. C.

The former partners of the late Howard Van Doren Shaw will continue the office and practice of architecture under the firm name of HOWARD SHAW ASSOCIATES, 104 South Michigan Avenue, Chicago, Ill.

HAROLD H. DAVIS AND ROBERT L. WALLDORFF have become associated for the practice of architecture under the firm name of Davis and Walldorff, Architects, with offices at 70 College Street, New Haven, Conn.

## NEW YORK SKETCH CLUB

THE REOPENING OF THE New York Sketch Club and Atelier with Mr. Ernest W. Watson as instructor of a pencil sketching class was announced in last month's issue.

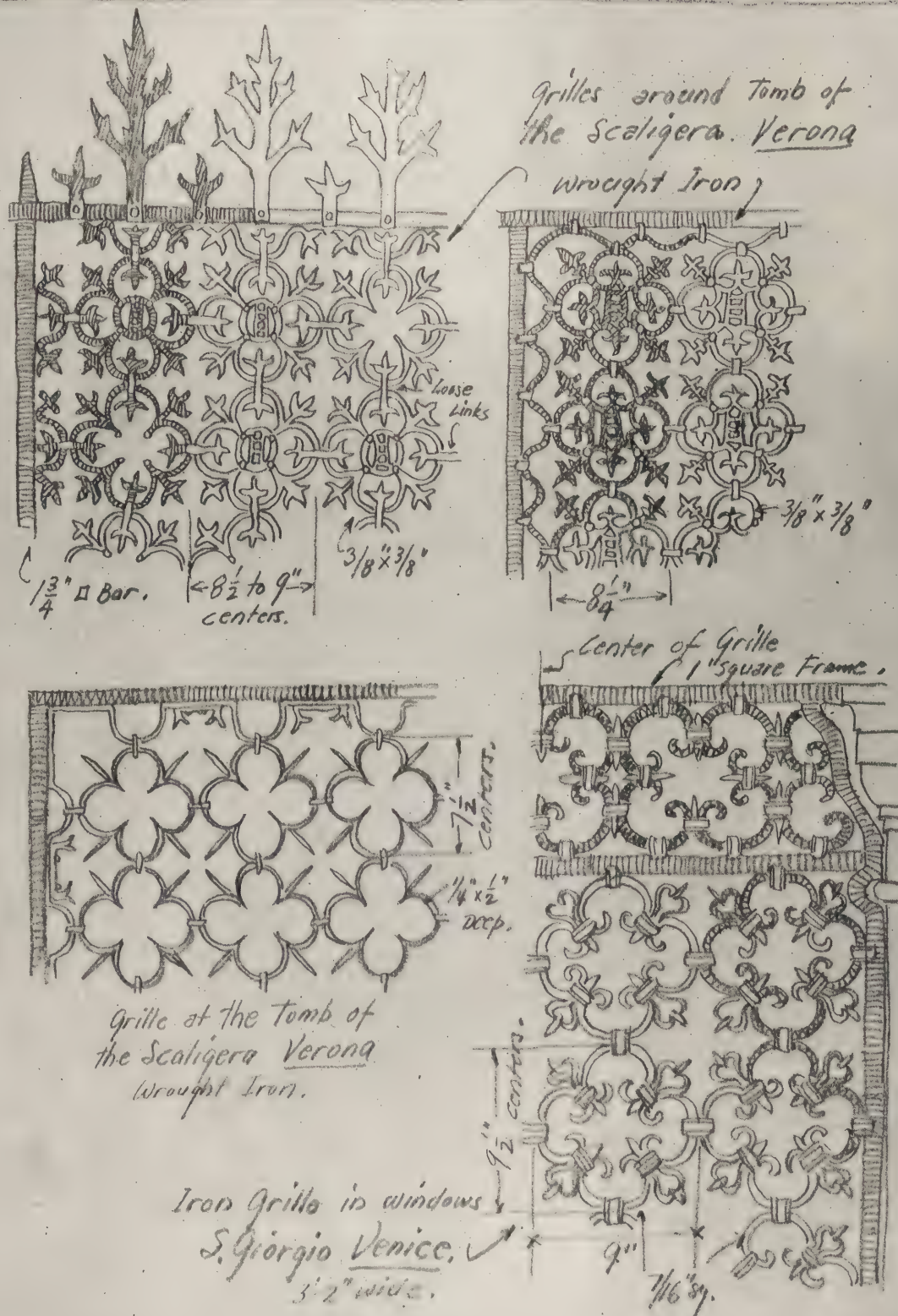
Mr. Watson will give this course of study in 24 lessons starting Wednesday evening October 6th, in the Club rooms at the Art Center, 65 East 56th Street, New York. Each evening a different phase of the work will be demonstrated. A library of sketching material will be loaned for the purpose of home sketching. Criticisms of this work can be received on atelier evenings.

A free exhibit of representative work of all students will be held by the Club in the galleries of the Art Center at the close of the Spring Session.

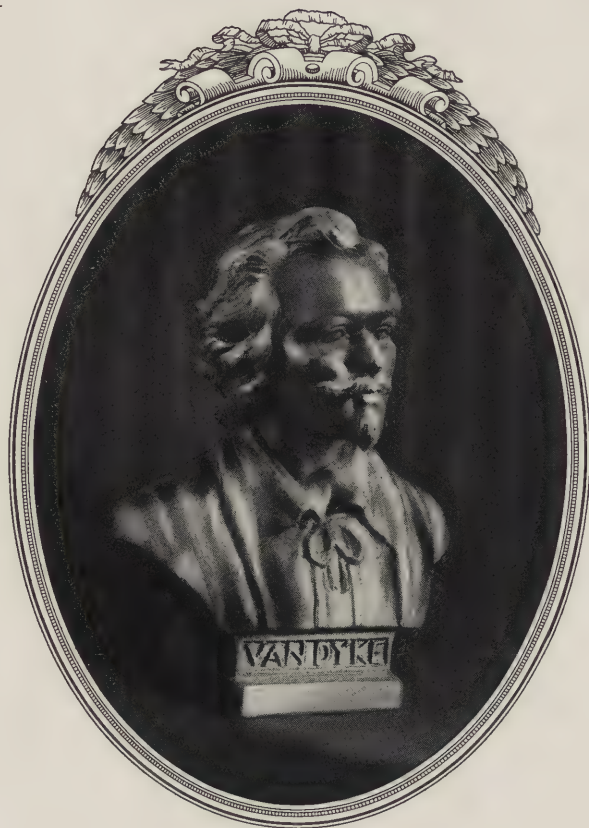
Special arrangements have been made by which a home cooked supper can be enjoyed at 6 P. M. on atelier evenings for one dollar including service, assuring the appearance of the fraternal, jolly comradeship in the spirited studies of the evening's work.

The Atelier has been limited to 25 members this year to afford the greatest possible personal instruction. Full information may be obtained from A. Thornton Bishop, 105 West 40th St., New York.









### VAN DYKE PENCIL DRAWING COMPETITION

ON ANOTHER PAGE of this issue Eberhard Faber announce their Van Dyke Pencil Drawing Competition, involving prizes which amount to the generous total of \$1,000.

Eberhard Faber are to be congratulated on being able to secure a jury of five such eminent artists as Messrs. Franklin Booth, Hugh Ferriss, Frank Alvah Parsons, Chester Price and Albert Sterner.

The announcement, including complete program, is being mailed to thousands of Schools of Art and individual artists and architects throughout the country. Further copies may be obtained from Eberhard Faber, 37 Greenpoint Avenue, Brooklyn, N. Y.

### PRATT ARCHITECTURAL CLUB

Dear Members:

We are naturally reticent when any mention of work is made. So when we had the misfortune to settle on the Publicity Committee we gave two raucous ha-ha-s, for at last we realized our ideal, a job plus no work, we thought. But no, our President and his aides are very old fashioned that way, and seemed to think that a Committee must function, hence you must again read. We are sorry.

It is our belief that Pratt Architects would be interested in seeing a list of Club Members. These men are interested in giving us a solid footing and pulling together for the coming year. There are 75 of them which we believe is a bully showing for the first six months.

The Fall is coming, and with it a program, for all members, actual and potential. Friend Webster says potential means "an existing possibility", so there you are. We have potential members all right and the difference between them and the actual members is just effort. There is no doubt in our minds that this is one virtue that Architects possess, if any. So turn your effort this way as we want you with us and we know you will be glad that you have come with us. This applies equally to resident and non-resident members. To give your effort a little encouragement just think what

mental anguish this letter writing effort is costing us. We are dizzy now so we offer the list in the interim.

'92 A. R. Koch	W. R. Wheeler
Wm. H. Gompert	I. Harvey Nichols
'93 Frank P. Whiting	F. C. Schneeweiss
'97 Warren E. Green	Raymond D. Ritchie
'99 H. P. Merrick	A. S. Pharman
'01 Myron Ashley	H. W. Clute
'03 H. D. Vernam	J. F. DeNiff
'04 Wm. P. Foulds.	'14 Nelson H. Cone
'06 Edwin L. Bachman	'15 E. W. Kiesewetter
Francis Seaman	S. L. Malkind
'07 Charles D. Turnbull	'16 G. F. Axt
Lester B. Pope	J. A. Maycock
'08 E. S. Anderson	Henry C. Eidt
I. Sarge Taffae	H. C. Todd Jr.
H. L. Skidmore	'19 I. N. Simon
John R. Harris	A. D. Cole
W. E. Haugaard	J. T. Reynolds
Charles Ernst	'20 Carl A. Friedel
'09 A. F. Edwards	J. B. Clerke
R. M. Rice	F. A. Drosch
Carl D. Schunck	'21 Edwin E. Bray
H. C. Jones	'22 D. N. Bugel
'10 E. W. Higgs	M. J. Hoffman Jr.
'11 L. M. Whitehouse	P. A. Tiagwad
Wm. Mayer Jr.	'23 W. J. Cooper
Ernest R. Ullrich	L. F. Boulware
Edwin A. Swensen	R. A. Novak
Wm. D. Heimroth	Wilburn Swanson
'12 D. O. Larsen	'24 H. S. Howe
Philip G. Knobloch	'25 H. A. Newman
A. L. Guptill	J. Louis Mayers
W. Malcolm Gray	'26 Angelo Rich
'13 H. F. Hallet	P. H. Hiller
A. S. Flinch	G. R. Griffing
Richard Mazari	L. H. Dennis

### Honorary Members

Frederick B. Pratt  
Charles Pratt  
Walter S. Perry  
E. F. Edminster.

When we asked R. W. R. whether this list could be printed he said, "How long is it?" So we got by this time. But by Fall we are going to be afraid to even think of asking, for we believe the list will be far beyond the generous space allotment that PENCIL POINTS so graciously provides. Many thanks and with best wishes to our actuals and potentials we are,

Sincerely,  
THE COMMITTEE.

### COPIES OF PENCIL POINTS

#### WANTED AND FOR SALE

R. Albertson, 3810 Dickens Ave., Chicago, Ill., wants January, February, June, November and December 1925.

Indianapolis Public Library, Reading Room Dept., Indianapolis, Indiana, wants January and April 1925.

Thomas Liang, 314 Elgin Ave., Tientsin, China, wants January, February and March 1923; October, November and December 1925.

Wm. F. Shuma, 1451 S. Karlov Ave., Chicago, Ill., wants copies from August 1920 to December 1920 inclusive.

Eva M. Page, Des Moines University Library, Highland Park, Des Moines, Iowa, wants June 1922.

Wallace F. Yerkes & Edgar A. Lynch, 161 East Erie St., Chicago, Ill., want the following copies: January and August 1921, March 1923, June 1925, March 1926.

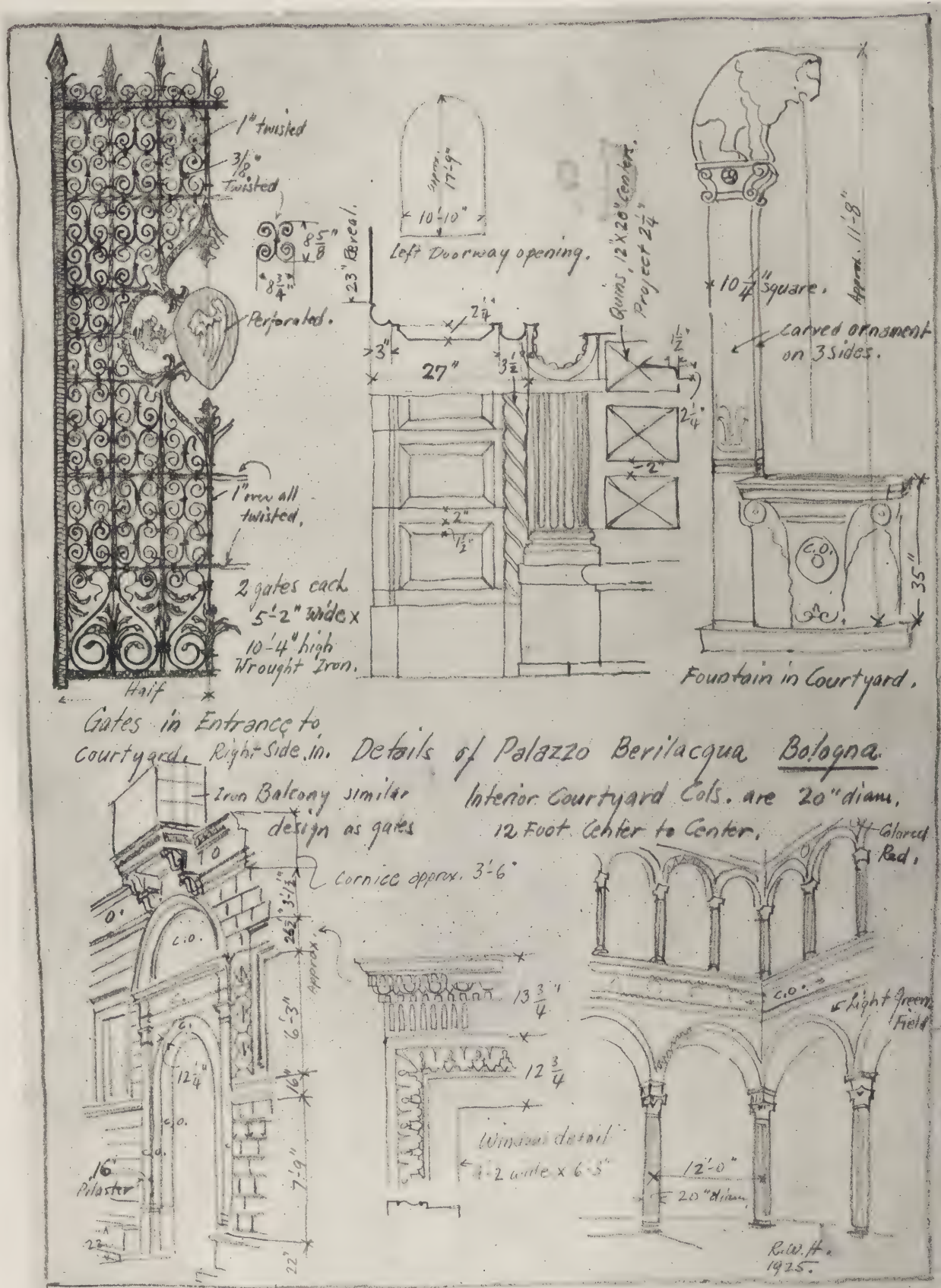
E. E. Searles, 759 Parsells Avenue, Rochester, N. Y., wants March 1926.

John and Donald B. Parkinson, 420 Title Insurance Building, Los Angeles, Calif., wants January 1926.

Yeung Sik Chung, 32 Wing Hon Road, South Canton, China, will pay 50c. each for the following back issues: June and July 1924, February and March 1925.

A. E. Amery, 10 Albany Crescent, Surrey Hills, Victoria Australia, wants copies of January, February and March 1925.





MEASURED DETAILS FROM THE NOTEBOOK OF ROBERT W. HUBEL, DETROIT, MICH.





PENCIL DRAWING BY LOUIS HECHENBLEIKNER  
BUILDING IN COURSE OF ERECTION AT 43RD STREET AND LEXINGTON AVENUE, NEW YORK



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

WE HAVE HAD SOME INTERESTING letters this month from subscribers located outside of these United States, several enclosing items for publication. This is most gratifying to us and we hope that this active interest on the part of those located at a distance may continue and increase. Several correspondents have contributed photographs of buildings, which really do not quite fit into the editorial scheme of PENCIL POINTS. What we are most anxious to receive are sketches, preliminary drawings, details and news notes of drafting room activities of all kinds. Of course, not all material received can be favorably passed upon but be assured that all will receive most careful consideration.

Some of you may wonder why month after month we are publishing in these pages pictures of little boys and girls who have no homes and are looking for foster parents. The story is simple. The State Charities Aid Association of New York has in its keeping several children who, for one reason or another, have become wards of the State of New York, and to whom the right kind of homes would be more than a God-send. These little children are being well cared for and educated but the right kind of home surroundings, to which every child is clearly entitled, would give them an even better chance in life.

So we shall publish from time to time pictures of some of these children in the hope that some members of the PENCIL POINTS family may know of homes where some of these little folks would be welcome.

PENCIL POINTS is considering for 1927 the conduct of a competition on its own hook which will not be in the interests of any firm or product.

We should like to have suggestions from our readers concerning what would be the most interesting subject for this competition. The prizes offered will be considerable. We have in mind two rather divergent plans. One is to conduct another sketch competition and the other is to write a program calling for design and plan as well as rendering. Which do you want? And if you would prefer a competition of the latter type, what subject makes the strongest appeal to you?

## WHO CAN HELP MR. BIGGIN?

THE PENCIL POINTS PRESS,  
Gentlemen:

Our Department of Architecture makes such constant use of the bound volumes and current issues of PENCIL POINTS Magazine, that the loss of a single number, rendering it impossible to bind a volume, seems almost a calamity.

Our college librarian will not bind any magazine of which issues are missing, and we are threatened with the working loss of Volume VI because of the number for February 1925 being missing.

Cannot you in some manner obtain this for us?

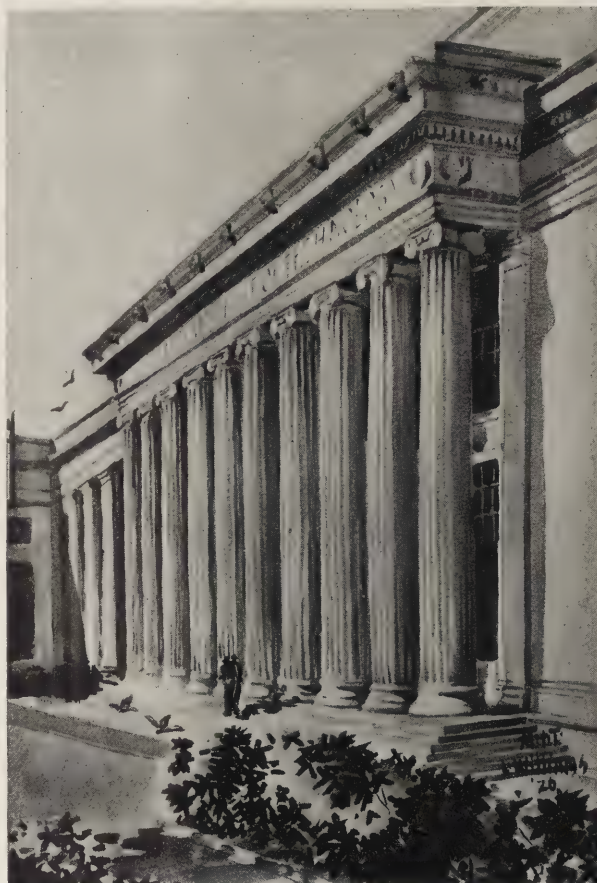
Very truly yours,

(Signed) FREDERIC CHILD BIGGIN

Alabama Polytechnic Institute, Auburn, Alabama



SKETCH BY E. M. SCHIWETZ  
(PRIZE—Class One—August Competition)



WATER COLOR SKETCH BY LOUIS WILLIAMS  
Massachusetts Institute of Technology





Having attained the proper state of reverence and deference, our hero, meekly and with humility approaches the sacred precincts



The Great Master who is hard in the "struggle" of endeavoring to locate and extract the cube root of one hair.



In thoughtful but troubled meditation, we see the humble draftsman preparing his soul and his frame of mind to capture a criticism from -



Survey without fear of distortion the discouraging marks which appear beneath him - oh that once spotless papers after a prolonged period of silence -



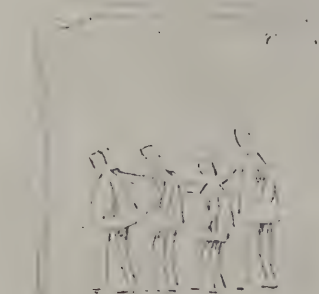
Until they reach the aforesaid board, where all hands turn out to assist the master in a position of vantage where he can -



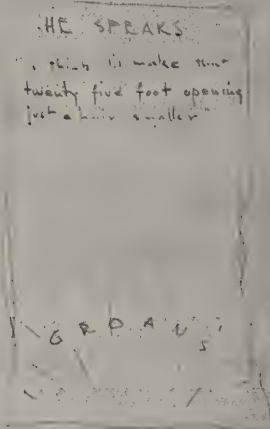
The Master accedes to the gentle request for his person at the board of the plaintiff, who respectfully drops to the rear and follows his teacher at a distance not less than three (3) paces -



And this it goes -



So it's back to the boards men - and we'll try to do it better next time



HE SPEAKS

which is make the twenty five foot opening just a hair smaller

16 P. A. V. 5





RENDERING BY B. G. GREENGARD  
Evanston Trust & Savings Bank  
Childs & Smith, Architects



BERT



JOE

#### WHO WANTS BERT AND JO?

BERT AND JO are bright little brothers, aged four and five. Bert is of superior intelligence. He has light hair, blue eyes, fair complexion, and is sturdy and active. Jo has brown hair, brown eyes, an olive skin, and is very observing. Bert and Jo are unusually attractive children and would make a delightful little family. They are lovable and easily managed. They have a good family background and are full orphans. They are Roman Catholic. Both are free for adoption. For particulars address Miss Sophie van Senden Theis, Superintendent of the Child Placing Agency of the State Charities Aid Association, 105 East 22d Street, New York City.



SKETCH BY JOS. RADOTINSKY



SKETCH BY J. J. BARRY





"A DRAFTSMAN'S MID-SUMMER'S DAY-DREAM,"  
BY WALTER J. CAMPBELL

### "THE ARCHITECT"

(PRIZE—Class Two—August Competition)

Where as we turn the page  
Of all that's said of Man;  
It matters not the stage,  
Nor year, in the lengthy span:

Is found true recognition  
Of him who made the plan,  
Fired by his great mission  
Of rearing works, for Man.

Those who builded Greece and Rome,  
Should Caesar's glory share,  
For shrines of beauty, hewn in stone,  
In temples grand and rare.

To-day, great cities does he plan:  
A complex task has he,  
Marking here, a bridge to span,  
And there to plant a tree.

Residence, though great or small,  
Of wood, or brick or stone;  
It matters not the style, at all,  
He gives each charm, its own.

The Gothic spire, that rises high  
On Church, the Faith's Defender.  
First he sees, with artist's eye,  
Before its rise in splendor.

The club, school, the office type,  
He solves in line and mass;  
Each to rise a different height;  
The Woolworth leads the class.

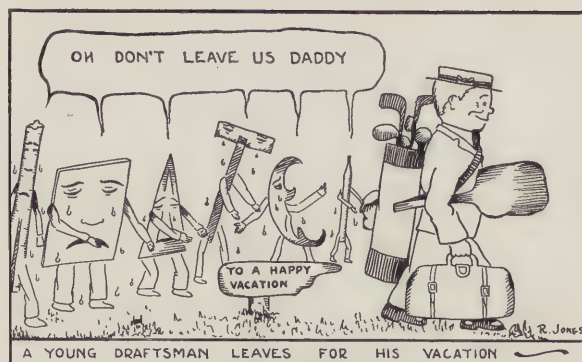
Much the architect needs know  
Of life, and countless things.  
No seeds of error should he sow,  
For 'tis joy, perfection brings.

Its rock and stone, concrete,  
And steel and wood and brick,  
His knowledge is complete;  
His book of facts is thick.

With color, texture, scale,  
And form, and sense of balance.  
These known, he cannot fail,  
In Art's alchemy and valence.

We his genius should prize  
For great's the debt we owe  
To him whose thoughts gave rise  
To the buildings that we know.

J. W. Wiley.



CARTOON BY ROBERT JONES

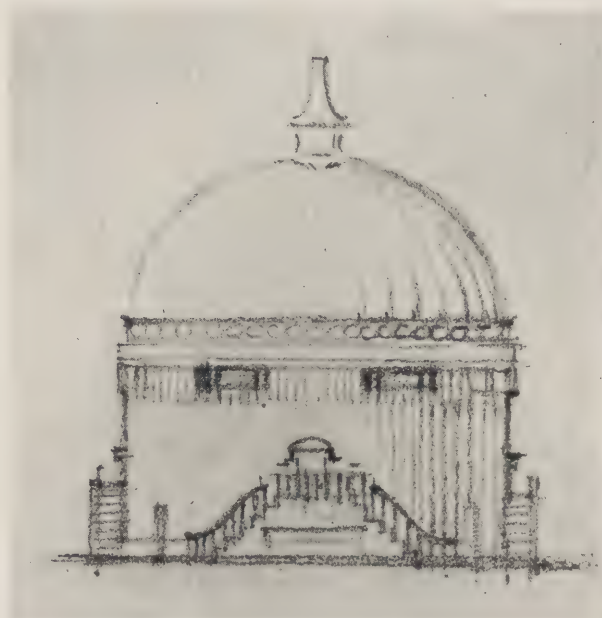
### NOTES OF A TRAVELING SCHOLAR

When I was in Greece  
I had little peace.  
The fleas and the vermin  
Were sure to worm in.  
They spoiled my pleasure  
Beyond measure.

One day in Venice  
I met a man named Dennis.  
(He was a bear at tennis)  
Said Dennis,  
"This Venice  
Is too wet for tennis;  
And Florence  
I regard with abhorrence;  
Let's go to Rome  
Which is more like home.  
We'll camp on the Corso  
Which is even more so."  
Said I, "Bo, you're right."  
—We left that night.

So now at Ferraglia's  
We sit 'mongst the dahlias  
And munch on Spumone  
And drink Zabaglione.

SALVADOR GLOOP.

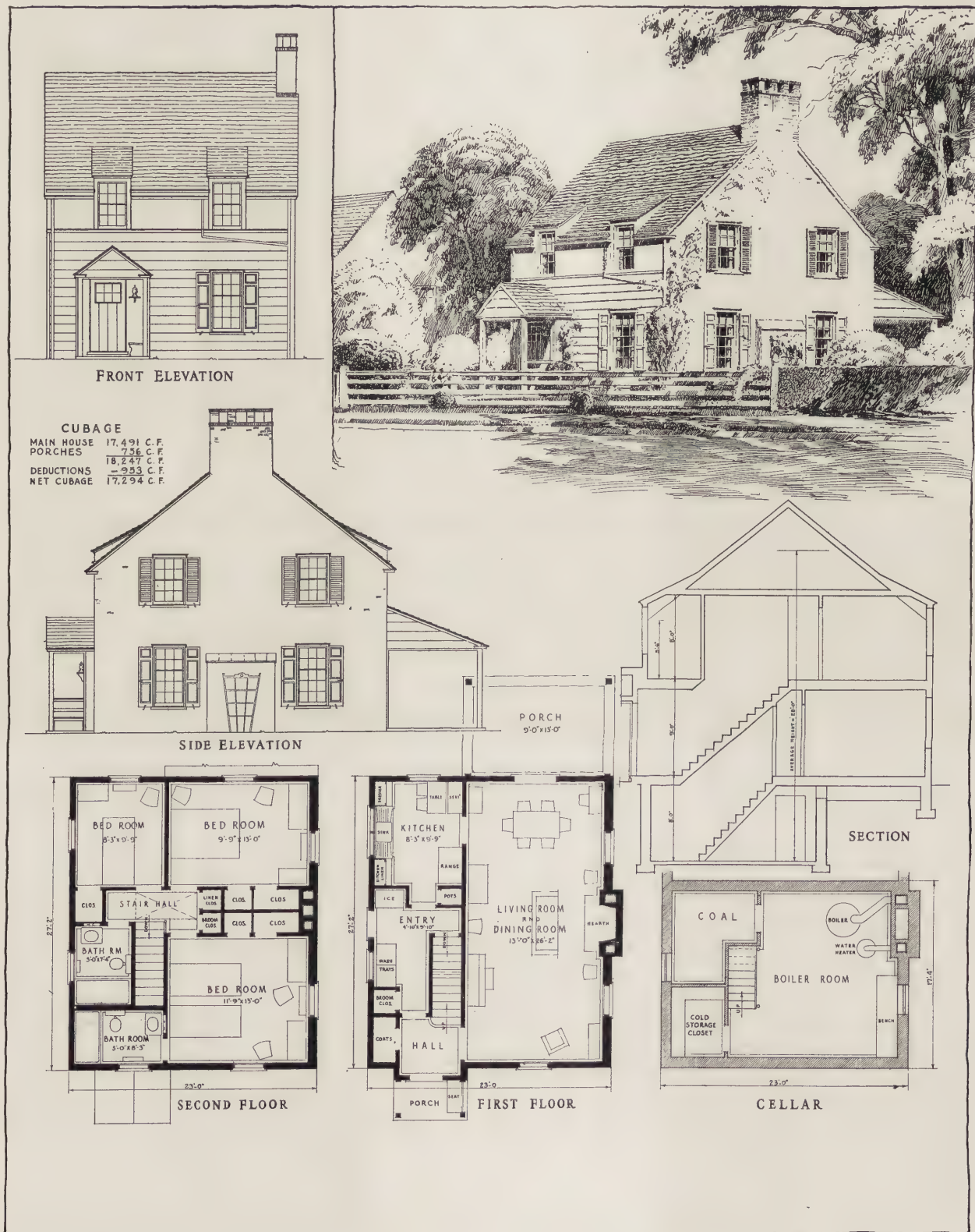


W. L. SWINNERTON'S IDEA OF A SUITABLE HOUSE FOR  
MR. HINDENBERG

(PRIZE—Class Four—August Competition)



# PENCIL POINTS



Courtesy of McCall's Magazine

SMALL HOUSE DESIGNED BY JOHN FLOYD YEWELL  
 AWARDED FIRST PRIZE IN THE COMPETITION CONDUCTED BY McCALL'S MAGAZINE







# THE SPECIFICATION DESK

A Department for the Specification Writer

## WHO WRITES THE SPECS.?

MAHLON J. BYE

### SPECIFICATIONS BY CARD RECORD

THE APPLICATION OF THE CARD RECORD SYSTEM to specification writing is by no means new and many Architects' offices use such a method in one form or another.

It takes but a glance, however, at the specifications prepared by many Architects' offices, and engineering offices as well, to reveal the fact that little or no system is used.

Even the archaic method of interlining a former specification still finds some advocates. This method furnishes the greatest possible chance of repeating the same errors or omissions existing in the original and in no sense furnishes a record.

The writing of a complete specification in long hand or the dictating of same used by some writers is obviously clumsy and tedious and leaves too much to the writer's memory.

The card record method evolved by the writer in collaboration with others who have studied the subject has passed the experimental stage and has been in active use for several years with very few marks against it for errors or omissions.

The basic principle in this particular method consists in having each clause covering any one article, or procedure, on an individual card, with its side caption, as it will appear in the finished specification.

It is obvious that such a system, to be successful, depends largely upon the manner of filing and maintenance. Standard size 5" x 8" white cards are used for the text, with appropriate guide cards and the whole file in a covered box or drawer. All the equipment required is carried by the supply houses. The cards should, of course, be typewritten.

The title of the general subject and sub-title, if any, should appear at the top of each text card, but separated from the text by a ruled line. In addition it is advisable for the cards in each group, or sub-group, to be numbered consecutively as a check against loss and to assure return to the proper place. Where there is more than one card covering the same subject the numbers may be identical.

As an illustration of the method above described the card heading for sash would, reduced, appear thus:

CARPENTRY - MILLWORK

| 16

SASH. Sash shall be 1 $\frac{3}{4}$ " thick etc.

"Carpentry" being the title of a general subject, or group, and "Millwork" the title of a sub-group or division.

In filing, the cards are arranged in the various groups with sub-divisions and in the same sequence as in the finished specification. Each group or sub-division should have a plainly labelled guide card, the former with title in center and the latter with title on the side, preferably of a different color. The guide cards should be provided in duplicate to facilitate replacement of cards as they are withdrawn with the others during the preparation of a specification.

In preparing a specification all the cards required, with their guides, are picked out, selecting those best suited to the condition and including all possible requirements as a check, even though many may be later culled out.

This preliminary process produces a complete specification subject to possible alterations or additions to meet the conditions required.

The cards are now edited clause for clause. Where a slight change only is necessary interlining may be resorted to and where deletions are to be made a square bracket enclosing such passage as an indication of removal has been found satisfactory and permits of easy erasure. Where changes on any one card are of considerable length it will be found best to rewrite same in long hand. In this connection it might be noted that the Library Bureau furnishes a tablet of the same size as the cards and suits such a purpose admirably.

It will be surprising to note, however, how few changes in the text will be found necessary after the system has

been well established and is in good working order. A secondary or temporary file is recommended for holding the cards during the preparation process.

After the editing process the cards should be re-read and are then ready for preparing the finished copy. If proper care has been exercised very few changes should be necessary in the finished product.

The printed copy should be checked over with the cards, after which the latter should have all pencil notations erased and be returned to their place ready for the next operation.

The outstanding advantage of the card record system for this work lies in its great flexibility and in the fact that rather than being a mere form it constitutes a record.

There may be any number of cards describing any one



MAHLON J. BYE

*Mr. Bye studied architecture at the Drexel Institute of Philadelphia, and spent several years in the offices of Walter Smedley and Edgar V. Seeler, respectively. For the past ten years he has been engaged in specification writing and general supervision in the offices of Wilson Eyre and McIlwaine, of Philadelphia.*



## PENCIL POINTS

material or method so that in most cases a card will be found on file which will suit the current requirements. Another asset will be found in the ability to add at any time, and in its proper place, new material or to remove the obsolete. Any new thought may thus be placed on file at once and the record kept constantly up-to-date.

In a large office where several types of work are done, two or more complete files may be maintained.

In developing a card record system the value is soon found in the method previously referred to, of having the clause covering every individual article or procedure on its own card (with side caption) rather than to attempt by false economy to group several subjects, even though related, under one captioned heading.

While the former method will require more cards it will make the system much more flexible and in the finished specification the many side captions furnish an excellent index.

An illustration of the above is found in the habit or custom which many specification writers have of prefacing a subject with a group of disconnected statements and which for want of a better caption heading, is labelled "General", or the title omitted entirely. Such an arrangement can obviously include anything, or, it might truly be said, conceal anything. The card record system automatically makes such an arrangement impossible.

The method herein outlined may, of course, be varied to suit the needs of the particular conditions under which it is used, without altering the principles.

Too much stress, however, cannot be laid upon the need of a well written, well organized specification, which carries its message clearly but briefly, and to accomplish such, a distinct system or method is necessary.

### LETTERS FROM SPECIFICATION WRITERS

*Here are a few letters we have recently received from readers of this department all indicating interest in our proposed plan of publishing a number of specifications by representative architects. It will be seen that each of our correspondents takes his own particular view of the matter, each contributing something of interest and value to us at this time.*

*We would like all of those who write specifications to comment freely upon our proposed library of specification documents, and also upon the contents of any of the letters published in this issue. We are more than glad to give of our space generously to those who are sincerely striving to improve present-day specification methods.—EDITOR.*

EDITOR, PENCIL POINTS.

Dear Sir:—

Regarding the first suggestion as to the desirability of PENCIL POINTS issuing a complete book on the subject of Specifications, I agree with your own comment that it is altogether too big a job.

As to the next suggestion that you publish a number of the best specifications obtainable, that is a most excellent thought, and should (and I believe will) meet with widespread approval. May I suggest that these should all be criticized most thoroughly by fully competent persons and then be completely indexed and cross-indexed. Such criticism together with the necessary emendations should make them of very much more general value than they would otherwise be.

I should also like to see incorporated in this book a repetition of the notes and comment by Mr. W. W. Beach that have been accompanying his specifications. They are the product of years of experience, the soundest sort of judgment, intensely illuminating and should by all means be thus preserved.

I believe also—and merely offer this for your consideration—that somebody should publish all available court decisions relating to construction work in such form as to be convenient for filing, record and reference. To a large extent, all specifications are summed up in these court decisions and the notices given sometimes by some magazines cannot be filed, indexed or used in any manner that I have ever found. If you could publish these for a year at a time, say, and then issue a complete index of all preceding data, I believe it would be of immense value.

I believe we all are under a debt of gratitude to Mr. W. W. Beach for his most delightful and valuable services during the last year and a half. I have never seen a subject

handled better and would like to extend to him my sincerest appreciation and to you my congratulations for all of his articles.

There is nothing in the whole field of building construction that requires more knowledge, more serious consideration or more painstaking care or harder work than specifications and there is no greater need for good ones and I appreciate your interest in the matter and wish I could contribute more to the cause.

With very kindest regards, I am

Very truly yours,  
(Signed) E. B. CHURCH.

PENCIL POINTS.

Dear Sirs:—

I think your idea of publishing specifications on various types of buildings an excellent one, and I am sure it would meet with great success, especially among the younger members of the profession. The specifications are usually the weakest part of most offices, and the young man seldom has access to specifications as he has to the numerous splendid books on design. As a rule one never gets a chance to write any; when one starts out for himself he usually begs some from a friend whether they are good, bad or indifferent and as a rule copies them if it is a similar building, the mistakes as well as the good points. I think it would be a wonderful thing for the profession and I hope you will get to it soon. One thing, however, you must see that they get to the right people and not to the charlatans, as there are so many hatchet and saw builders posing as architects.

Very truly yours,  
(Signed) ALBERT V. FISHER.

Dear Mr. Reinhold:—

I am very much interested in the proposed plan to publish specifications actually written by architects. I think it a splendid plan.

The principal benefit, however, to be derived from this plan will be to the persons whose specifications are published.

If the architects are given the same opportunity of seeing what other architects are doing in their Specifications Department, as they have in other architects' designing departments, I believe it will lead to marked improvement in specification writing.

I think that a number of architects, some even well-known, are secretly a little ashamed of their specifications—and very few of them are actually proud of them. Criticism and suggestions would certainly be beneficial.

The young specification writer would undoubtedly be interested in how well-known architects' offices write their specifications, and if he used these specifications intelligently he would be benefited. If, however, he blindly copied them he would be very likely to make some very serious mistakes.

Yours very truly,  
(Signed) LEROY E. KERN.

Scientific Research Department of the American  
Institute of Architects

THE SPECIFICATION DESK.

Gentlemen:

*Subject: Specification Publications*

In response to your request in the last issue of PENCIL POINTS, we are pleased to submit the following comments relative to your proposed publication of specification data.

We believe the data of most use to the greatest number of architects would be information as to materials or articles which have been successfully used by others, for the purpose under consideration. For example, the item of doors in hospitals; what kind, material, quality, thickness, gauges, design, finish and hardware equipment has been specified by representative architects throughout the country for use in the various special locations in hospital buildings. Instead of reprinting, intact, the complete specifications of one building, this would mean a digest of successful specifications from different offices, for the same type of building, and grouping, as alternate clauses, the specification each used for the various items.

(Continued on Page 578)



# PUBLICATIONS

## OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Heating Blue Prints and Specifications.**—Blue prints and specifications showing actual heating layouts for the following types of buildings: residences, hotels, banks, theatres, apartments, office buildings, churches, schools and institutions, libraries, public buildings. Extremely useful in studying heating problems. In applying kindly indicate the type of building in which you are interested. Vapor Heating Co., York, Pa.

**Houses of Stucco.**—Attractive illustrated Brochure with color plates, detail drawings, including elevations and plans of many interesting residences. 50 pp. 8½ x 11. Atlas Portland Cement Co., 25 Broadway, New York.

*Published by the same firm, Remodelling with Stucco, brochure covering this important subject in an interesting way. Many illustrations and much practical information as applied to buildings of different types. 24 pp. 8½ x 11.*

**Specifications for Concrete Hardening and Waterproofing.**—A. I. A. File No. 3-B. Specification portfolio containing complete data on subject indicated. Practical specifications in convenient form, together with indications of necessary drawings. Standard filing size. 8½ x 11. Anti-Hydro Waterproofing Co., 265 Badger Ave., Newark, N. J.

**Architects' & Engineers' Built-Up Roofing Reference Series.**—Volume 4 covers in a complete and comprehensive manner the treatment of roof drainage systems. Contains blue prints, specifications and explanatory text. Very valuable document for the specification writer. 63 pp. 8½ x 11. The Barrett Co., 40 Rector St., New York.

**Bostwick Economy.**—Booklet describing Bostwick "Truss-Loop" Metal Lath and Metal Lath Accessories for every purpose. Contains specification section. 3¼ x 9. 30 pp. Bostwick Steel Lath Co., Niles, Ohio.

**The Agecroft Window.**—Folder describing and illustrating this type of window, with specifications and details on its construction. 8 pp. 8½ x 11. The Medal Brick & Tile Co., Cleveland, Ohio.

**Wooster Security Nosing.**—Folder illustrating nosing for use with linoleum, mastic, cork, tile, rubber magnesite composition. Contains specification. A. I. A. File No. 14-d-2. Also contains full size cross sections. 8½ x 11. The Safety Stair Tread Co., Wooster, Ohio.

*Published by the same firm, "Wooster Safe-Grove Stair Treads, A.I.A. file No. 14-d-1.*

**Armstrong's Linoleum Floors.**—Detailed specifications and complete descriptions. Fourth Edition, completely revised. Loose-leaf portfolio with color, plates, detail drawings and complete data for the specification writer. A. I. A. File No. 28-i-1 8½ x 11. Armstrong Cork Co., Lancaster, Pa.

**Alpha Brass Pipe.**—Booklet containing interesting facts and important data on brass pipe. 8 x 10½. 14 pp. Chase Metal Works, Waterbury, Conn.

**Speakman Showers and Fixtures, Catalog H.**—Loose-leaf edition arranged especially for architects. Numerous illustrations, sectional drawings and complete data on all equipment and specialties required in connection with modern showers. Specifications. A. I. A. Classification 29-H-3. Standard filing size 8½ x 11. Speakman Co., Wilmington, Dela.

**Fenestra "Blue Book".**—1926-27 edition treats of every phase of steel window usage. This catalog contains 128 pp. profusely illustrated and durably bound. Detroit Steel Products Co., Detroit, Mich.

*Published by the same firm, "Architectural Windows", a compendium of reversible ventilator type windows for schools, banks, office buildings and other structures of similar architecture. This is a 28 page brochure with covers in colors. Also "Residential Windows". Complete information on steel casements which have gained such a vogue among home buyers and builders. Entire range of stock types and sizes is shown, together with full description of their various fixtures. Also covers installation and screening of windows. Also, "Continuous Sash", catalog covering every phase of industrial steel sash layout and erection. 76 pp. Also "Built-In Daylight", complete handbook of sidewall sash for the builder. Application of this sash to various types of building construction is thoroughly covered and drafting room details for proper erection are given.*

**When Beauty Weds Utility.**—Booklet illustrated in color showing the new Republic Two Way-Bath Fixtures. List of installations. 8 x 10. The Republic Brass Co., Cleveland, Ohio.

*Published by the same firm, "Modern Conveniences that Insure Your Income". Booklet illustrated in color on various types of plumbing fixtures 7½ x 10. 12 pp.*

**The J. & L. Junior Beam.**—Booklet just off the press contains working tables and other data in the application of the new Junior Beam to all uses in construction, especially for floors and roofs in office buildings, hotels, hospitals, schools, apartments, farm buildings, garages and other large structures, as well as dwelling houses. 55 pp. 8½ x 11. Ask for Bulletin No. 2. Jones & Laughlin Steel Corporation, Pittsburgh, Pa.

**Evernu Seats.**—Catalog G illustrates and describes this product fully. List of installations, special information, summary of advantages, etc. A. I. A. File No. 29-H-22. 28 pp. 8½ x 10½. Never Split Seat Co., Evansville, Indiana.

**Pressteel Lumber Manual.**—Handbook of information on metal lumber for a variety of uses. Tables, dimensions, detail drawings, data on walls, partitions, roofs, floors, etc. 56 pp. 6 x 9. North Western Expanded Metal Co., 407 Dearborn St., Chicago, Ill.

**Pecora Caulking and Glazing Compound.**—Booklet showing methods of obviating leakage of air, wind, dust and water. Blue prints. 4½ x 5½. 18 pp. Pecora Paint Co., 4th and Sedgley Ave., Philadelphia, Pa.

**Glass Lined Laundry Chutes.**—Booklet completely illustrating and describing this type of equipment for the hospital, hotel club house and fine residence. Drawings and other data. 14 pp. The Pfandler Co., Rochester, N. Y.

**Portland Cement Stucco.**—Handsome Brochure containing 12 full page color plates and many other illustrations showing the application of Portland Cement Stucco. Condensed specifications, recommendations of design and construction, instructions how to prepare, how to color materials, overcoating old houses with Portland Cement Stucco, typical construction details showing stucco on concrete tile and block and on frame construction. 64 pp. 8½ x 11. Portland Cement Assn., 33 W. Grand Ave., Chicago, Ill.

**Raymond Concrete Piles.**—Handbook on the subject with illustrations, details, drawings and much useful data. 60 pp. 8½ x 11. Raymond Concrete Pile Co., 90 West St., New York City.

**Reading Wrought Iron Pipe.**—Bulletin No. 1 Technical treatise on the development of this material, methods of manufacture, service in public buildings and other important structures. 32 pp. 8½ x 11. Reading Iron Works, Reading, Pa.

**Tudor Stone Roofs.**—Brochure presenting details of attractive roofs done in slate with suitable text. Also data on terrace floors and garden walks. 32 pp. Rising & Nelson Slate Co., West Pawlet, Vt.

**Improved Mechanisms in Builders' Hardware.**—Complete catalog showing detail drawings and instructions for installing mechanical builders' hardware such as casement hinges, casement operators, hinges and pivots, and overhead door checks. 6 x 9. 58 pp. The Oscar C. Rixson Co., 1210 Architects Bldg., New York City.

**Water Filtration for All Purposes.**—Bulletin No. 194 illustrates and describes Scaife Gravity and Pressure Filters. Contains illustrations, typical layouts, cross sections, tables of dimensions, blue print specification form and typical layout of swimming pool circulating and re-filtering system with Scaife filters and auxiliary equipment for complete installation. 8½ x 11. 32 pp. Wm. B. Scaife & Sons Co., Oakmont, Pa.

**Soss Invisible Hinges.**—Booklet showing details and specification data. Hinges for furniture, cabinets, and general use in buildings. 24 pp. Soss Mfg. Co., Grand Avenue & Bergen St., Brooklyn, N. Y.

**Sanitas Modern Wall Coverings.**—Specification folder A.I.A. Classification 28-C-1. This folder contains samples of the material, specifications and such other information as is necessary for the information of architects, specification writers and draftsmen. Standard filing size, 8½ x 11. Standard Textile Products Co., 320 Broadway, New York City.

**The Gospel of Fresh Air.**—9th Edition. Covers subject of ventilation and ventilators for all types of buildings. Much specification information and technical data. 36 pp. 8½ x 11. The Swartwout Co., Cleveland, Ohio.

**Faritan Drinking Fountains.**—Catalog B-2 illustrates and describes automatically controlled drinking fountains. Contains prices, dimensions, specifications and list of installations. 36 pp. The Halsey W. Taylor Co., Warren, Ohio.

**Thatcher Furnaces.**—New Catalog with color plates showing complete Thatcher line Sections, layouts and specification data. 24 pp. 8½ x 11. Thatcher Furnace Co., 30 St. Francis St., Newark, N. J.

**T. & B. Registers and Grilles.**—78th Annual Catalog showing complete line with attractive drawings and engravings together with prices, dimensions, detail drawings and complete data. 76 pp. 8 x 11. Tuttle & Bailey Mfg. Co., 2 West 46th St. New York.

**Ancient Beauty for Modern Buildings.**—Illustrated brochure dealing with columns for both exterior and interior uses. 10 full pages of sketches. 40 pp. 8½ x 11. Union Metal Mfg. Co., Canton, Ohio.

**Von Duprin Self Releasing Fire Exit Devices.**—A handbook on the subject. Illustrations of all types, sections and details. Complete instructions for specification and installation. Instructions for swinging doors. A very valuable book for every specification writer. 96 pp. 8½ x 11. Vonnegut Hardware Co., Indianapolis, Ind.

**Yeomans Automatic Electric Junior Drainage Pump.**—Leaflet No. B-330 describes new automatic electric drainage pump for light service. Yeomans Bros., Co., 1448 Dayton St., Chicago, Ill.

**Zenitherm, the Universal Building Material.**—Brochure in sepia showing application of this material on several interesting jobs. Detail drawings and complete data. 8½ x 11. Zenitherm Co., 405 Lexington Ave., New York.



COMPLAINTS REGARDING THE ACTIVITIES OF  
MR. WALTER L. COOKE

August 17, 1926.

PENCIL POINTS,  
New York, N. Y.  
Gentlemen:—

Two book agents by the names of W. L. Cooke and Francis Adams are traveling around the Eastern States victimizing architects. Their method of procedure is to state that they represent the Architectural Book Publishing Company or some other reputable firm and to offer fancy prices for books in the library of these architects. Their offer is generally so tempting that the architects part with their books upon their promise to sell them immediately and to bring back the money.

In no instance that we know of, have these men ever paid for a book which they have so received. As far as we personally are concerned, Walter Cooke called upon an architect in Philadelphia by the name of Wetherill P. Trout of 222 Jessup Street, and collected \$20.00 due us from him by representing that he was our agent. This money of course, has never been paid over to us.

We trust that you feel as we do that these men should be stopped, and that you will do your part to do it.

Yours very truly,  
Architectural Book Publishing Co. Inc.  
(Signed) M. KRAKOW.

August 14, 1926

PENCIL POINTS PRESS,  
New York City, N. Y.  
Gentlemen:—

An agent claiming to represent your concern, Walter L. Cooke, by name, some few months ago took a collection of very valuable books of mine for disposal. I have not been able to collect the money or the books and have not been able to get a reply to my letters.

I learn he has recently changed his name to W. L. Cook. His partner, Francis Adams, was with him at the time.

Other architects here in Boston have had the same experience with this pair within the last year or so and we are now going to take action to prevent this sort of practise continuing.

Any information you can possibly give me regarding these two men by prompt reply will be greatly appreciated.

Very truly yours,  
(Signed) William L. White  
OFFICE OF MOWLL AND RAND

Mr. William L. White,  
Office of MOWLL and RAND, Architects,  
Boston, Mass.

My dear Mr. White:—

Responding to your letter of August 14th, please be informed that Walter L. Cooke is not, and never has been, a representative of this Company. Our only dealings with this person, much to our regret and subsequent total loss, being an indebtedness contracted by him for books bought from us during 1924 amounting to \$104.41, which we were unable to collect. He recently went through bankruptcy, and we have been obliged to write this amount off as a total loss. He has tried on several occasions since 1924 to get in deeper with us, but he has not succeeded.

Recently he has been operating with a Mr. Francis Adams, whom we have refused to do business with on other than a cash-in-advance basis. We have had no business dealings with Mr. Adams.

It has recently come to our attention that both Mr. Cooke and Mr. Adams have been operating on the basis you outline in your letter.

Very truly yours,  
THE PENCIL POINTS PRESS, INC.

EXPOSITION OF POWER AND MECHANICAL  
ENGINEERING

THE FIFTH NATIONAL EXPOSITION of Power and Mechanical Engineering will be held at the Grand Central Palace, New York, during the week beginning December 6th. All types of mechanical equipment in use in all industries will be shown. The exposition is under the management of the International Exposition Company, Charles F. Roth and Fred W. Payne, managers, with offices in Grand Central Palace, New York.

## LETTERS FROM SPECIFICATION WRITERS

(Continued from Page 576)

Clauses covering "Quality of Materials", "Preparation of Materials" and "Workmanship" for trades such as concrete work or masonry work could be eliminated, as they would be much the same in each type of building you cover, and are of such common use that probably every office has a suitable standard.

Clauses of similar purpose could be eliminated in trades where there are reliable standard specifications published by trade associations such as the Limestone, Terra Cotta and Tile groups or the A. S. T. M. A bibliography of such standard specifications as have a wide-spread use, might well be included.

Concentrate principally on kind of work and the material used, only repeating matters of preparation and workmanship, when somewhat out of the ordinary.

The above object, of course, will require mentioning manufacturers' names, but it would seem desirable that each excerpt from a particular specification mention only the name of the manufacturer whose material was actually installed in the building.

Avoid the subject of form. No one form is clearly superior for use in all offices, and all kinds of work.

Separate into the usual trades and in case of doubt make more trade sub-divisions rather than combining.

We believe that volumes prepared along the above lines should be of considerable value, and find a wide-spread demand, particularly for architects outside the larger cities where it is harder to keep in personal touch with the latest developments of the architectural profession.

Very truly yours,  
F. P. PLATT & BRO.  
(Signed) L. O. ROHLAND.

## THE SPECIFICATION DESK.

Gentlemen:

In reference to proposed plan of publishing in book form actual specifications which have recently been used by the offices of reputable architects, I certainly am enthusiastic about your main purpose—that of leading to a higher standard in specification writing. Mine need all the ideas I can accumulate to this end.

As an aid to my own work, I have, during the past few years, been working up a "Dummy" which is, as you see from the enclosed excerpts, not only a time saver for myself and typists, but is also a sort of glorified checking list. I have about one-third to one-half of the dummy completed. Am now working on the final draft of Carpentry and Metal Furring, Lathing and Plastering. All the sections, however, I have in various stages of development.

Am enclosing main index, masonry index, and complete section on Excavation, filling and grading, thinking that, should you publish one volume along similar lines, you might eliminate many of the objections and difficulties involved in your present plan.

Should you rough out the scope of such a publication (either in this or other form), publish one section at a time in current PENCIL POINTS, invite criticism from specification writers, and then revise and publish in book form, would you not have a valuable document, embracing the consensus of opinion of specification writers throughout the country boiled down to a minimum? You might even be able to obtain the consulting services of a selected list of specification writers to start the discussions and promote interest among the rest of the specification writers.

The task of publishing one comprehensive volume is, as you say, gigantic, but it loses much of its fearsomeness and becomes quite feasible if tackled one section at a time.

Am bringing these ideas to your attention, believing you may find merit therein worthy of consideration.

The form of the dummy (card index and book form) is not original with me, it being an accumulation of what I consider the better parts of various systems now in use by several architects.

Very truly,  
(Signed) FRANK B. STEVENS, JR.



# PENCIL POINTS

An Illustrated Monthly JOURNAL for the

DRAFTING ROOM *Edited by* RUSSELL F. WHITEHEAD

KENNETH REID & E. L. CLEAVER *Published by* THE PENCIL POINTS PRESS, INC.

Ralph Reinhold, *President*, Edward G. Nellis, *Vice-Pres.*, W. V. Montgomery, *Secretary*



## *Back to School Again*

THE CITY, AS WE OBSERVE it, is at this season quickening again to life after a summer of languid effort just sufficient to keep things going. Architects, ambitious draftsmen, and fresh-laid Bachelors in Architecture have returned from their foreign journeyings, rested and inspired by their travels to do Bigger Things; while others, less fortunate, who have remained behind to labor five torrid days a week, have managed to accumulate from their regulation two weeks, reinforced by week-ends at the beach or in the country, enough pent-up potential so that they also are ready to burst into architectural song. Professors of Architecture have, presumably, been spending their vacations in dreaming up programs for formidable *analytiques* and *projets* to spring upon their fall classes in design. The schools and ateliers are all swept out and ready to receive their annual consignments of *anciens* and *nouveaux*. The stage is set; the actors are ready. On with the play!

A peculiar thing about architecture is that while the preparation for its practice involves an extraordinary amount of persistently applied effort, its devotees seem to derive almost unlimited pleasure from its study. The process of learning about architecture seems never ending. It lasts a lifetime, we are told, and is carried on in the schools, in the offices, on

the street, at home,—à pied, à cheval, et à bicyclette. He who would get ahead keeps ever at it. It would, therefore, seem to behoove office-boy, draftsman, and even architect to improve the shining hour by taking advantage this year of some one of the many existing educational facilities, from university to correspondence school. We believe that the great majority of our readers are students in the larger sense of the word and that most of them are on the alert to learn, whether it be from the pages of PENCIL POINTS, the lips of a lecturer or from a good text book.

Therefore, we take special pleasure in announcing that "The Study of Architectural Design", by John F. Harbeson, Assistant Professor in Architectural Design at the School of Fine Arts, University of Pennsylvania, will be off the press this month. This work will be of inestimable value to students, schools and ateliers following the program of the Beaux-Arts Institute of Design. The author has presented his subject, together with numerous illustrations, in a manner to be of the greatest possible usefulness. In bringing out this work we have adhered to our policy of publishing books of value to the profession at as low a price as is consistent with proper treatment of the subject.

We extend our best wishes to all and sundry who join the ranks of the students of 1926-1927.

## Contents

The Relationship Between Architect and Draftsman

*By Edwin H. Hewitt* 581

Master Draftsmen—Cass Gilbert

*By Francis S. Swales* 583

Pen Drawing, Chapter II.

*By Arthur H. Guphill* 599

Wrought Iron Precedent, IV.

*By Gerald K. Geerlings* 605

Rendering in Color

*Insert*

Plates 613-620

The Ricker Manuscripts

*By Thomas E. O'Donnell* 621

Construction Details 623

Whittlings 625

Here & There & This & That 632

The Specification Desk 637

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CAMERA STUDY BY J. FRANK COPELAND  
TERRA COTTA URN IN GARDEN OF BORGHESE PALACE, ROME



# PENCIL POINTS

Volume VII

October, 1926

Number 10

## THE RELATIONSHIP BETWEEN THE ARCHITECT AND THE DRAFTSMAN

*By Edwin H. Hewitt*

I HAVE NEVER HAD much experience with large offices in the sense of large organizations, except as a draftsman myself. For years my own work has not required a very large organization. As a draftsman I had the pleasure and profit of working in several large offices. The experience was valuable, and I have always been grateful to the heads of these offices for their kindness and helpfulness to me as a draftsman.

I did not find, however, in these various offices at all times the sense of loyalty to the work which always seemed to me was required. For instance, it was a very common practice in certain offices to take on numerous men for the sake of getting out a set of working drawings quickly, and letting numbers out at the end of the work, leaving the skeleton office organization to carry on until the next time came requiring quick work on the part of the general force.

This practice at the time seemed to me to generate a spirit among the men so taken on which was not conducive to good morale; they were inclined to soldier a bit on the job in order to make it last longer, as they said. However incompetent I may have been as a draftsman myself this spirit was revolting to me.

These early experiences resulted in firmly fixing in my own mind the only policy I have ever had

regarding my own drafting room, namely, a conviction that I would much prefer to treat draftsmen as associates than as hired help. In other words, for years we have consistently maintained a permanent

organization and have taken on extra men but rarely, the idea being we would rather get out the work a little more slowly, but get it out with men who have the feeling of the office in mind, rather than rush the work out for the sake of clearing the track for the next job.

I don't suppose that my predilection for a more or less permanent organization has produced that spirit of loyalty and consideration that one would imagine but I think on the whole the practice of the profession in my own experience has been pleasanter thereby.

Really taking responsibility and helping to bear the load is another quality which is difficult to obtain, even in so-called permanent organizations of office force.

There is always the feeling that the boss' shoulders are strong enough to always take the load. How to get a feeling of loyal devotion to the job and a proper acceptance of responsibility all along the line is always a problem. A sense of security of tenure of position in the kind of office I have in mind produces a willingness sometimes to let things drift and to lessen that sense of responsibility that most likely would be more vividly present if the



EDWIN H. HEWITT, F.A.I.A.  
FROM THE SKETCH BY DAVID K. RUBINS



## PENCIL POINTS

man's job depended on just exactly that kind of attitude towards his work.

I sometimes think with envy of the atmosphere in the foreign offices that I have been more or less familiar with, where the head of the office will devote say two days out of the week when he is available by telephone and by appointment, or for his own superintendence on work, the other days of the week when he can labor on his own work undisturbed, producing much of it himself. When

I compare that atmosphere with the clatter and rattle of the usual large office I sometimes marvel at the quality of work that is nevertheless produced.

I don't know that I have anything further to add to the general tenor of what I have said above. I shall look forward to the discussions on the part of other practitioners of this question because I realize that there are as many ways of regarding this matter as there are personalities.

*The discussion of the relationship between the architect and the draftsman was begun in the August issue of PENCIL POINTS with an article by R. Clipston Sturgis and continued in September by J. Monroe Hewlett. Future issues will contain contributions on this subject by Charles D. Maginnis of Boston, Walter W. Judell of Milwaukee, Albert Kahn of Detroit, H. Van Buren Magonigle of New York, F. R. Walker of Cleveland, Myron Hunt of Los Angeles, Leon C. Weiss of New Orleans, William A. Boring of New York, William Leslie Welton of Birmingham, William Emerson of Boston, and Irving K. Pond of Chicago.*



# MASTER DRAFTSMEN, XVIII

CASS GILBERT

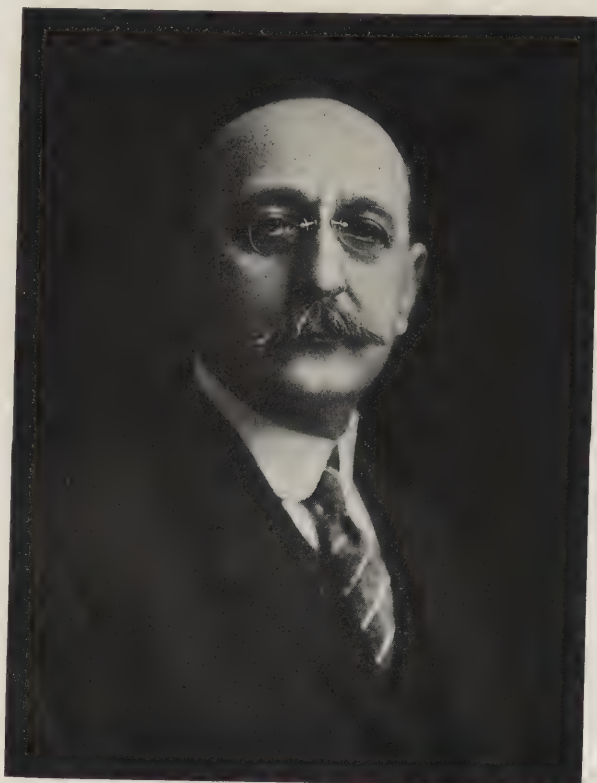
*By Francis S. Swales*

HAVING BEEN WISE in the selection of a wealthy man as a grandfather, no reason other than being fascinated by the subject and a consequent desire to create new works of architecture can be given for Cass Gilbert's strenuous career as a draftsman, architect and painter of architecture in water-colors. He began his training in an architect's office at St. Paul, Minn., in 1876. Two years later he entered the Massachusetts Institute of Technology to take a special course in architecture under the guidance of the late Professor Eugene Létang. There he won the Institute Prize for the year 1878-79. The summer of the following year he was appointed to the Coast Survey and sent to West Point, New York, to measure and plot the Point, upon which the National Military Academy is located. In January, 1880, he set out to travel and study in Europe, first going to England where he made the acquaintance of Street, Waterhouse, Pearson, and Burges, (who, it is perhaps necessary to mention, in this year 1926, constituted a group of architects that during the "Victorian period" held some such position in the English architectural firmament as did Scott, Dickens, Thackeray and Tennyson in the literary), then on to Paris, where he was attracted by the work of Viollet-le-Duc and the theories of the Ecole des Beaux Arts. He remained in Paris until the spring, when he went on a tour through Italy, followed by another trip along the Loire, and then returned by way of England to the United States.

In September of the same year, 1880, he entered the office of McKim, Mead & White, shortly after Mr. White had become a partner in the firm. He worked upon the designs for the Newport Casino, Drayton House, and Charles Barney House as White's personal assistant, and jointly with White designed the Tiffany House in New York and the

Ross Winans House at Baltimore, then collaborated with Joseph Morrel Wells upon the Villard House. He was afterwards sent to Baltimore to take charge of the work of McKim, Mead & White in that city. In December 1882, he went to St. Paul and formed a partnership with Mr. James Knox Taylor which continued during the next ten years.

The work which came to the firm of Gilbert and Taylor was such as is characteristic of the successful office in a small town: residences, churches, railway stations, school buildings and, occasionally, a "big job" such as the Endicott Building—which is still, or was a few years ago when I last visited that city, the best office building in St. Paul from the point of view of architectural design. The partners worked away, as most young architects do, at the drafting boards, and out on the jobs "superintending"—as it used to be called. They made most of their working drawings and details and when an "important" job hove upon the horizon, drew their own perspectives and made their own pen and ink or water-color renderings. It was due to such renderings of pictur-

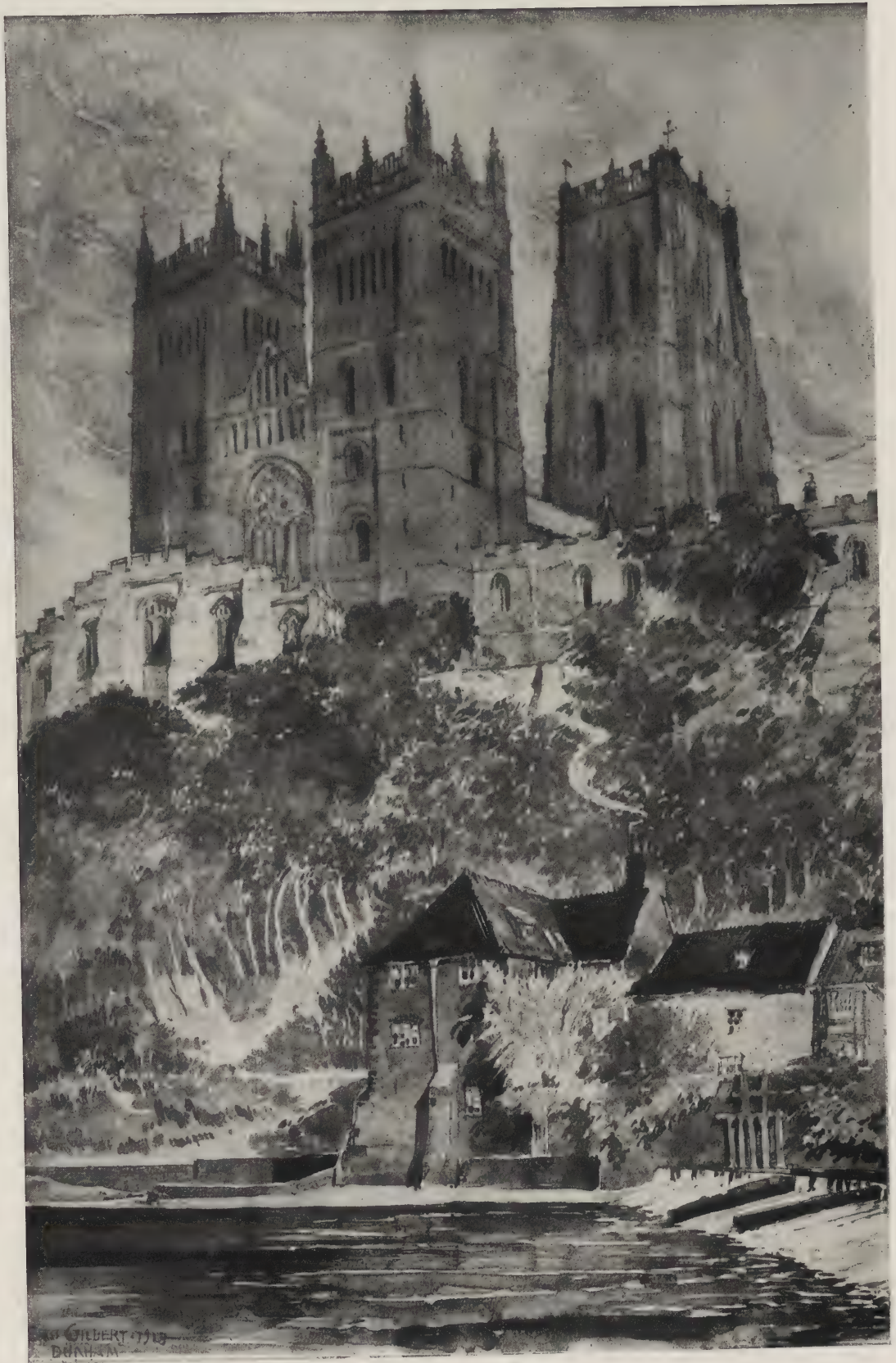


CASS GILBERT

esque designs by Gilbert and Taylor that Cass Gilbert's name became familiar to architects and draftsmen who received the "architectural" journals of the day. Among such early drawings were a pen and ink sketch for the very picturesque Swedeborgian Church at St. Paul and a pleasing composition rendered in water color and gouache of a round-towered, stone and shingle cottage at White Bear Lake, Minnesota. Some of his early sketches of old work in Europe appeared from time to time in the catalogues and year books of the exhibitions of the architectural clubs, Architectural League, and so on.

In 1896, when Mr. Gilbert won the competition for the State Capitol of Minnesota, a competition





WATER COLOR SKETCH BY CASS GILBERT  
DURHAM CATHEDRAL



which brought forth several excellent designs (among which linger in my memory as worth recalling, those by Ernest Flagg, Julius Schweinfurth, and Wyatt and Nolting), he became ranked as one of the leading architects of the country, so that we may count that he put in twenty years mainly at the drafting board before Dame Fortune smiled on him, and Reputation began calling upon him to appear at Directors' meetings and dinner functions.

Since the Minnesota State Capitol success, however, he has produced so many important works of first magnitude that it is needless to do more than mention a few to convey some idea of the difficulty in the way of finding time to draw, while handling the business organization necessary to produce such designs and buildings. Among these are the building in lower Broadway which converted the five-and-ten-cent-store man's name into that of the proprietor of the world's tallest office building; the great bulky U. S. Customs House at the Bowling Green—which, to my way of seeing things, is still the best planned, least bookish, most vigorously American and strongest piece of monumental designing among all the public buildings in the United States; a few State Capitols—besides Minnesota's, those of Arkansas and West Virginia, that were built, and designs which won competitions for those of Montana and Wisconsin that were not; the public libraries at Detroit, St. Louis and New Haven; a whale of a warehouse for Austin Nicholls and the vast army supply base over in Brooklyn; "the tallest office building in the middlewest"—at Cincinnati; and a few dozen or so of other public buildings, universities, office buildings, banks, railway stations, bridges, monuments, etc., costing a million or more of dollars each, that are easily overlooked in a glance at such volume of work. The striking quality in all his work whether as a matter of design or representation is its peculiarly *American* quality. It belongs neither to the French-American, German-American nor Anglo-American "schools" nor to the Slavish copying of the works of Classic Gothic or other historic period styles; nor is it obtrusively "personal" in characteristics.

Obviously such a mass of work has pressed him more and more away from the drafting room, and even from the executive office, more and more to the administrative, diplomatic and social end, which the handling of so much work entails, yet he finds time to design and draw and paint. That he is a decided success as a business man everybody knows, but anybody who knows him well, knows too that being a successful business man is the last thing in the world which interests him. While he thinks in big units and dreams in grand scale, he deprecates size as an element of architecture, and the "merely gigantic" or "merely colossal" (terms he often uses) are little to his liking. Of his executed works I think he likes best the Detroit Library or the Waterbury

City Hall—at least he has spoken of them from time to time as having afforded opportunities for architectural qualities of truth of expression, refinement of detail, "human scale", and so on, so that it would seem that making "big plans" is not the ideal with Gilbert that it was with Burnham. (I am quite sure that "D. H. B." really liked best the *biggest* thing he ever did—or *thought* he did!). Cass Gilbert is essentially a great designer and creator of form and style. That implies a skilful draftsman, especially the kind who can express his ideas by means of good free-hand sketches. He finds time to make the sketch for each design and takes an active part in its drafting, and however much it may be refined and studied as the drafting and detailing proceeds, the final result is clearly foretold in his little, rapidly-made sketches which supply the key and solution. They mean everything to the talented and skilled assistant.

In his office a number of the most scholarly younger architects in the country have developed. To such it has evidently proved a congenial studio, since several of them have remained there twenty years or more. Mr. Gilbert has a delightful way of saying the most flattering things about his associates or assistants in a most convincing manner, and his high enthusiasm for artistic quality in the drawings and lively attentive interest in the technical skill of the men working with him should, and doubtless does, contribute to the *esprit-de-corps* which marks his office with a pleasing, old fashioned dignity and makes it a present day centre of America's finest draftsmanship. Twenty years ago, while I was at Paris, I learned that he was sending young men of talent from his office to the Ecole des Beaux-Arts and defraying their expenses, and from such men learned of his practically applied interest in draftsmanship and draftsmen.

If the scope of these articles included a study of the varied facets of the subject as a leader in the modern professional practice of architecture; his part in the development of the ideals of professional societies; his genealogy; his broad vision and thoughts upon social and political conditions or his capabilities of statesmanship or qualities of an ambassadorial nature, here would be one of a very small number of outstanding figures among all American architects to whom several pages of interesting data and anecdote might well be devoted. To briefly illustrate a point or two I have in mind: The part which he took while President of the American Institute of Architects in raising the funds for the purchase of the Octagon House at Washington as national headquarters of the A. I. A. According to one of the group of principal contributors: "He stung our purse-pride into subscribing a great deal more than we would have been willing to, by asking whether we would give half as much as he would."

Another instance occurred during a conversation



PENCIL POINTS



WINDSOR CASTLE



LAON CATHEDRAL

WATER COLOR SKETCHES BY CASS GILBERT





WATER COLOR SKETCH BY CASS GILBERT  
TOWER OF SAN GIORGIO ROMANO, FORUM, ROME



we had in London when he was first discussing the project of the Woolworth Building with Mr. Woolworth—then proposed for a site about one-quarter as large as that finally developed. He said he had not yet decided whether to keep to the theories of design of that time, or go to a more pronounced vertical character, (as he had done with the West Street Building) but thought he would adopt "Gothic lines". I refrained from asking the question uppermost in my mind as to whether the American Can Company might take the tailoring business away from the Jews by providing mediaeval suits of armour "to match" the architecture, but conveyed the thought that Gothic were an anachronism, to which Mr. Gilbert re-



BATHS OF CARACALLA

sponded: "It may be, but I think the times are running against themselves. It seems to me that we are on the verge of a new mediaevalism—a great world-upheaval—a breaking away from our heretofore fixed ideals of the order of things—and the coming of a new individualism." In the light of things which have since transpired the expression proved to be prophetic!

While discussing anything he has in mind in regard to architecture, painting or sculpture he has the habit of making quick brilliant little sketches illustrating ideas of design in form and in color-values. They are made on anything that comes handy—the back of an envelope or menu, (but I have noted he is pernickity about the table-cloth or



ANTWERP CATHEDRAL

WATER COLOR SKETCHES BY CASS GILBERT

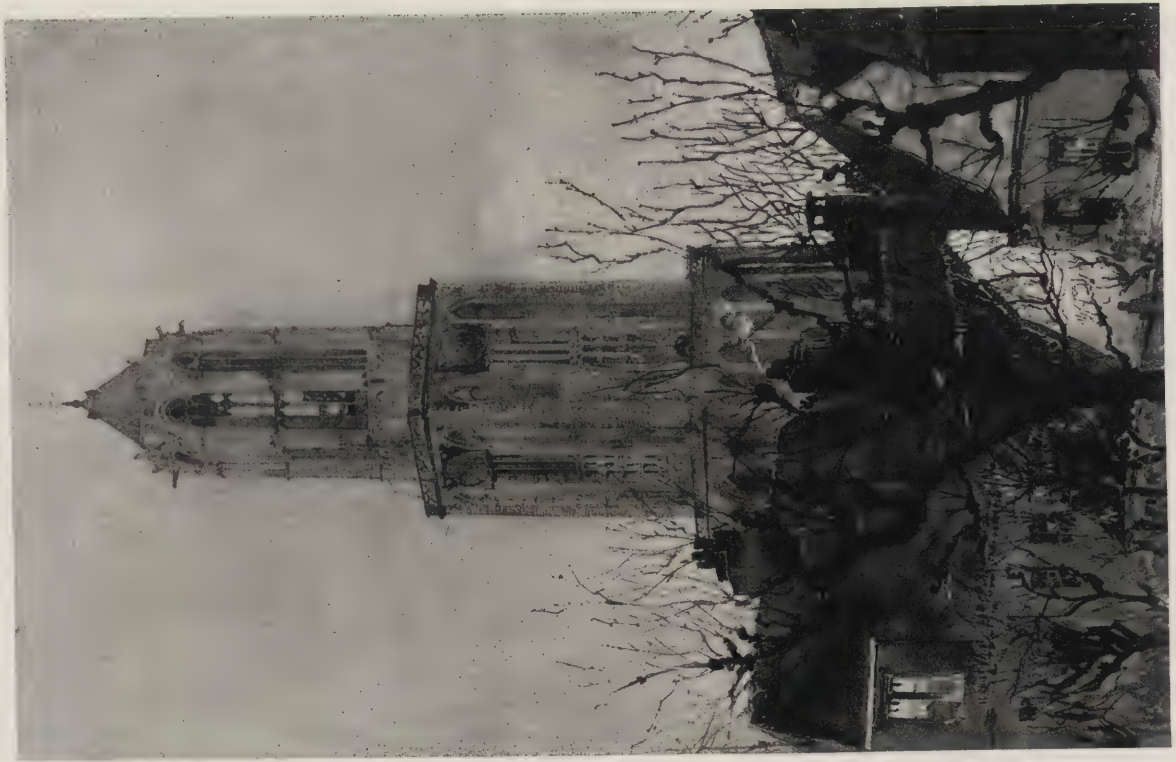




WATER COLOR SKETCH BY CASS GILBERT

SEGOVIA, 1920





TOWER AT UTRECHT, HOLLAND



DRESDEN

WATER COLOR SKETCHES BY CASS GILBERT



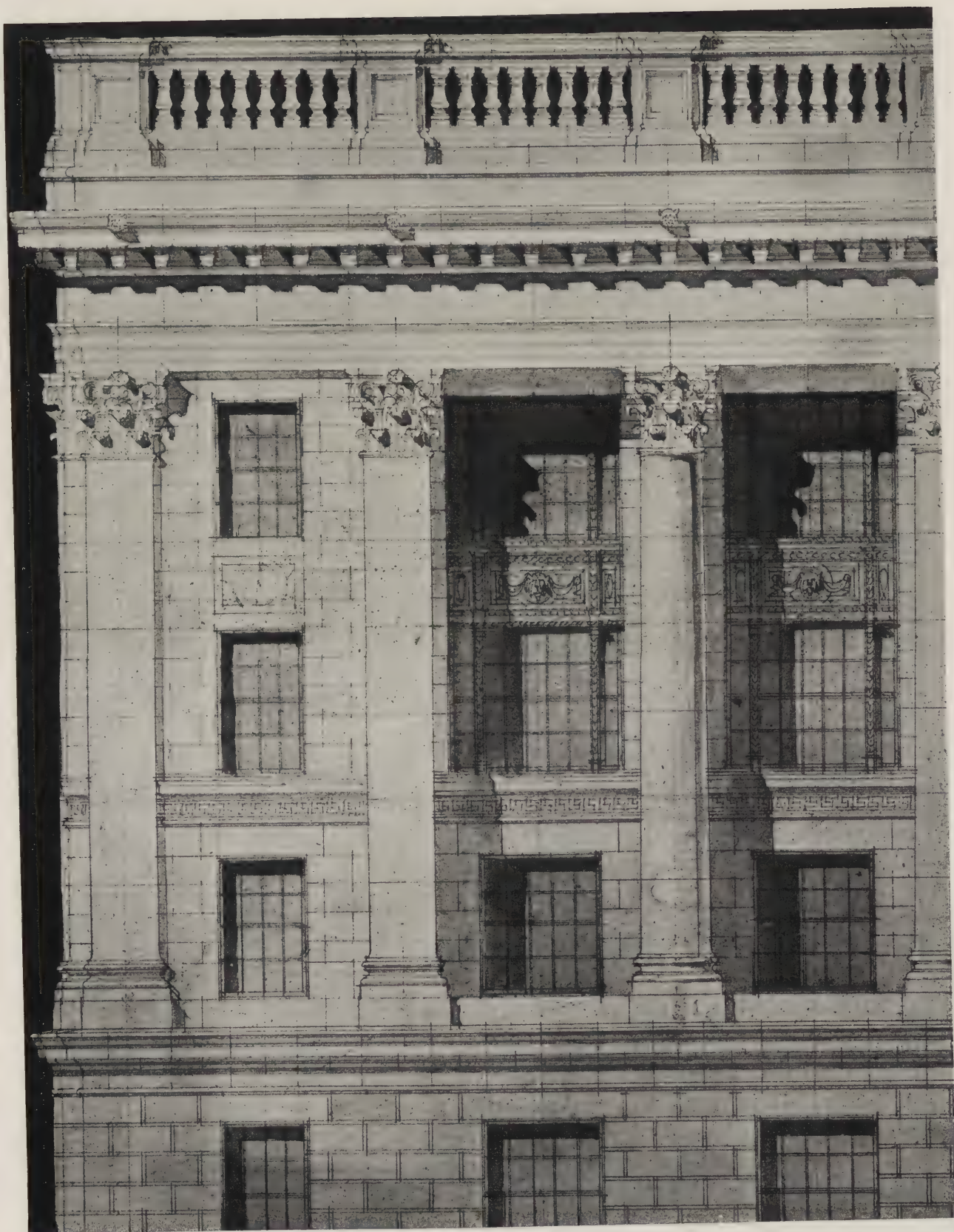


WATER COLOR SKETCH BY CASS GILBERT

LAC D'AMOUR — BRUGES



PENCIL POINTS

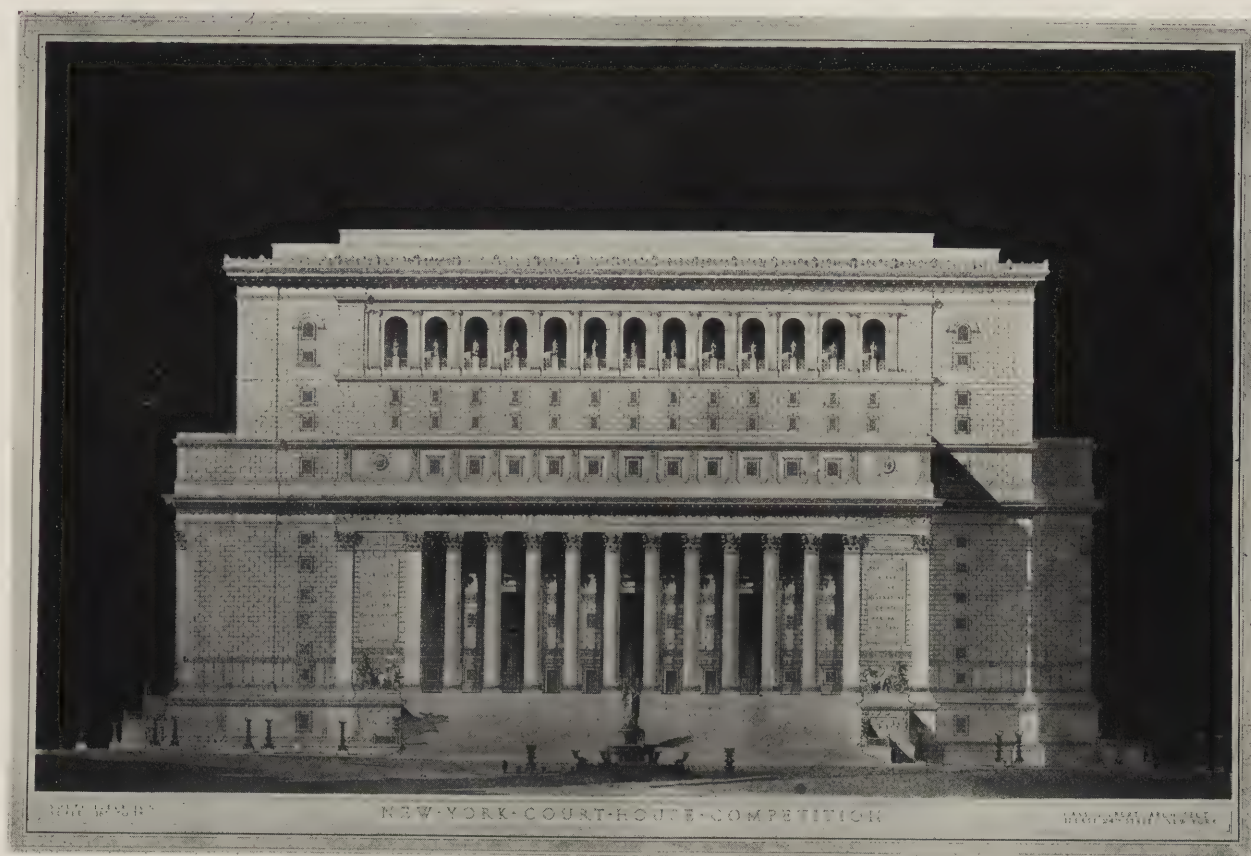


DETAIL OF ELEVATION AT  $\frac{1}{8}$ " SCALE, FEDERAL RESERVE BANK, MINNEAPOLIS

DRAWN BY F. G. STICKLES OF THE OFFICE OF CASS GILBERT

*Cass Gilbert, Architect*





COMPETITION DRAWING FOR NEW YORK COURT HOUSE, CASS GILBERT, ARCHITECT

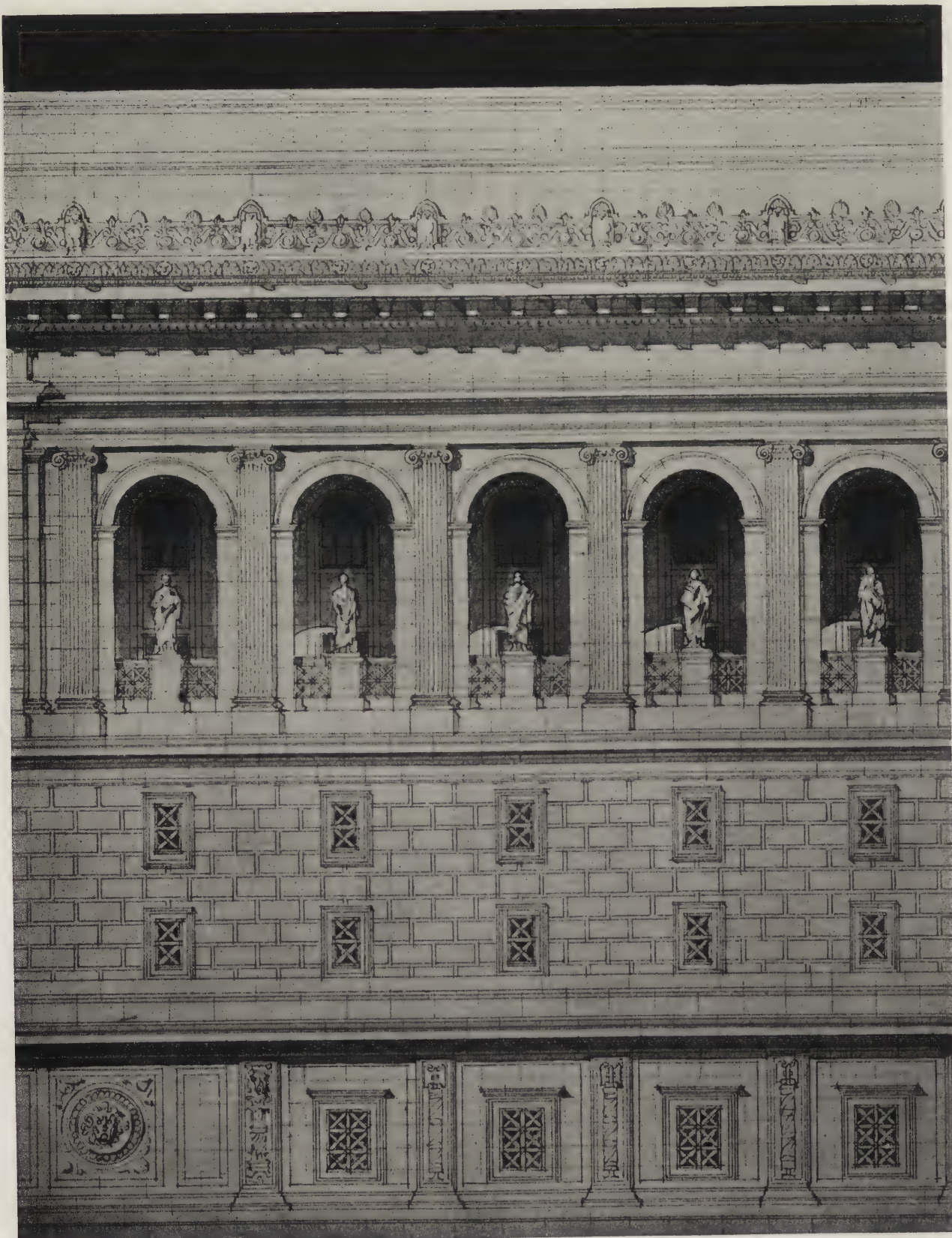
serviettes!) Ideas flow easily from the end of his pencil as it skims over the paper with a light, sure touch—observing his style of indication with the pencil of only the essential things of a composition one notes that it plays upon the imagination of others. By a few rapid lines following the direction of light and a movement of a finger across them following the direction of a horizontal line in perspective a graded shadow is produced in an instant—and it has a specific color—it is a purple-blue color and the wall that it falls upon is a greyed orange. Two or three little wiggles indicate tiles and one or two lines give the silhouette of a roof; an opening, a balcony, an ornamental railing, and the sketch is to be filled in with water-color. The drawing is a veteran water-colorist's style. Style—a well developed character—is the essence of Gilbert's drawing, of his water-coloring and of his architecture.

He has a large scrap-book full of his small sketches and studies for designs, and a pile of sketches of bits of architecture in Europe made in pencil and pen and ink. These having been made for some purpose apart from drawing for pleasure he does not regard them as worth publishing—though they would illustrate a very interesting volume. The drawings he has made for pleasure are mainly water-colors. The originals are mostly about four times the size of the reproductions in color accompanying

this article. They are nearly all pure water-color drawings or with but slight use of the pencil for indicating outlines. Where the pencil is used it plays no important part in the drawing. The original line is fine, and light in touch and the greater part of it is drawn with the brush. When the high tension of business is removed for a few weeks during the summer Mr. Gilbert goes to Europe with a golf bag packed with water-colors, brushes and a sketch block. I suspect that "golf" is a subterfuge to avoid telling anybody that he is going sketching. The human and humorous side of the artist crops out in a couple of stories I know of some of his vacation trips. On one of them he started out from London on "a short motor trip through the south of England". He was gone about a week and came back with four or five good sketches—each of which looked like a good day's work. It seems that at Winchester he made two sketches of opposite sides of the Cathedral at the same time, leaving one on the ground to dry while he went around to continue the other. An acquaintance espied him walking around the front of the church "with a small paint brush in his hand" and facetiously inquired, "Are you going to paint the cathedral?" "No", responded Gilbert, "only the two sides of it".

On another occasion he "took Mrs. Gilbert sight-seeing in Holland". But Mrs. Gilbert's story was



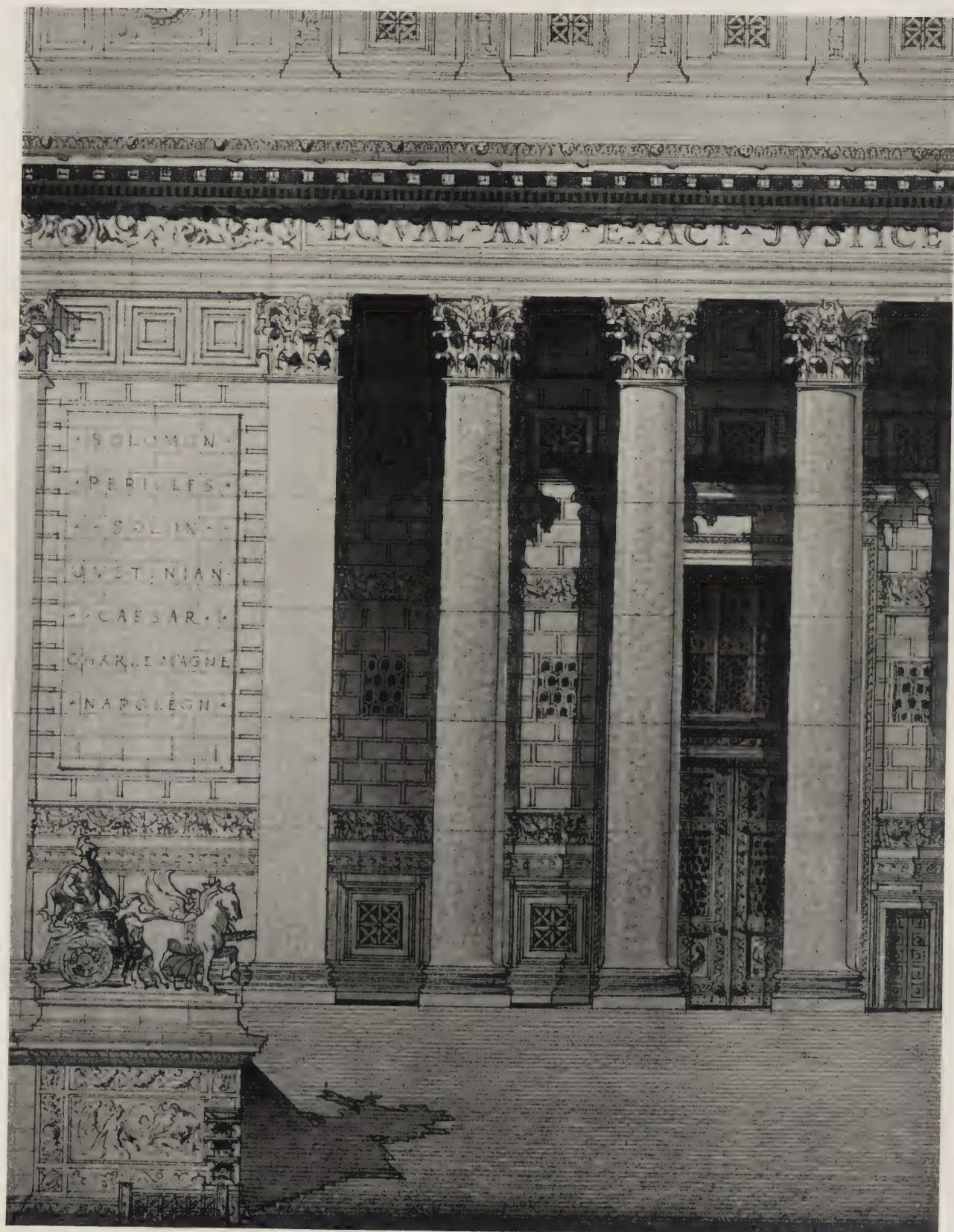


DETAIL OF ELEVATION AT  $\frac{1}{8}$ " SCALE, COMPETITION DRAWING FOR NEW YORK COURT HOUSE

DRAWN BY THOMAS R. JOHNSON OF THE OFFICE OF CASS GILBERT

*Cass Gilbert, Architect*





DETAIL OF ELEVATION AT  $\frac{1}{16}$ " SCALE, COMPETITION DRAWING FOR NEW YORK COURT HOUSE

DRAWN BY THOMAS R. JOHNSON OF THE OFFICE OF CASS GILBERT

*Cass Gilbert, Architect*





WATER COLOR SKETCH BY CASS GILBERT  
HOTEL GUILLEAUME LE CONQUERANT, DIVES, FRANCE





WATER COLOR SKETCH BY CASS GILBERT

TOWER AT ENKHUIZEN, HOLLAND



## PENCIL POINTS

different. "We went into a little inn where a good view of an old gate or tower was had from a window rather high from the floor, and Mr. Gilbert started a water-color sketch". An inconvenience developed making it necessary to set the glass of water on the

floor. C. G. kept stooping down to put his brush in it, and after a while Mrs. Gilbert volunteered to hold the glass for him. "All right," he said, "I'll only be a few minutes." "But it was *hours*," said Mrs. Gilbert "and oh my! how my arm ached."



PEN DRAWING BY CASS GILBERT  
SWEDENBORGIAN CHURCH, ST. PAUL, MINN.



# PEN DRAWING, CHAPTER II

By Arthur L. Guptill

## THE ESSENTIAL MATERIALS

THE MATERIALS NEEDED for pen drawing are few in number, simple, inexpensive, and easily obtained. Give a person two or three good pens and pen holders, a bottle of ink and a pen wiper, a few sheets of paper having a smooth, firm surface, a drawing board or some such support on which to place the paper, and a half-dozen thumbtacks with which to hold it there, a fairly soft pencil for constructing the drawing and a soft eraser for the later removal of the pencil lines and the cleaning of the sheet, a rather hard eraser or knife for the correction of pen lines, and he is well equipped for work of the usual sort.

The market is flooded with so great a variety of all such things that it seems necessary to offer some advice to the beginner to aid and restrict him in his selection. For the beginner, lacking guidance, is almost sure to purchase things of more diverse types and in larger quantities than is essential. One surely cannot become an artist by the simple expedient of collecting art supplies. If one buys but few things, instead, and learns to master them well, trying others only after this mastery has been attained, using greater and greater variety as added efficiency is gained,—comparing, rejecting, substituting,—he will eventually become partial to certain things especially suited to his own individuality. One should not, however, be too hasty or over-confident in his condemnation or rejection of materials;—one would not heap blame upon a musical instrument simply because he found himself unable to perform on it at the first attempt. Like such instruments, materials often have hidden qualities that it takes long practice to bring into evidence.

One cannot hope to do good work with any but the best materials. Those recommended are by no means the only excellent ones, but as they have stood the test of time and have been held in favor by many leading artists, we list them here without hesitation. If not available others can perhaps be found that will give equal, and possibly even greater, satisfaction. These as listed should prove sufficient for most problems. A few special things are described in later chapters, where their uses are also explained in some detail.

**PENS.** The choice of these is a matter of great importance, yet a matter concerning which artists themselves are so much at variance that it is small wonder that the student is at a loss to know where to turn.

In the olden times there was no such bewildering variety as we have now. The word "pen" seems to have come down to us through the Latin "penna", meaning a feather or plume, and so originally referred to pens fashioned from feathers. These quill pens, and pens made from reeds, were used for

many centuries,—in fact from the earliest times of which we have definite record—until comparatively recent dates,—the former still being in common use even after the middle of the 19th century. Today, however, they are rare indeed, though Walter Crane in his *Line and Form*, recently published in England, says "...but though one occasionally meets with a good steel pen, I have found it too often fails one just when it is sufficiently worn to the right degree of flexibility. One returns to the quill, which can be cut to suit the particular requirements of one's work. For large, bold drawing the reed-pen has advantages, and a pleasant rich quality of line." In *Line*, another English book, by Edmund J. Sullivan, he tells us that "Reed pens, like the quill, have been almost entirely supplanted by the steel nib. The writer has small experience of them, but well remembers J. Pennell, that most expert technician, getting excited about them; and if an artist can become pleasurably excited about the handling of a tool, that tool is for the time being the best possible. That it is the calamus of the ancients lends it a special charm. A set of them as used by the Egyptians can be seen in a case at the British Museum,..." This gives us light on their antiquity. And Maginnis, in his well-known *Pen Drawing* has this to say, "Though somewhat out of fashion for general use, the quill of our fathers is favored by many illustrators. It is splendidly adapted for broad, vigorous rendering of foreground effects, and is almost dangerously easy to handle. Reed pens, which have somewhat similar virtues, are now little employed, and cannot be bought." The author quotes freely from these authorities since it has never been his privilege to use the reed pen and because his experience with the quill has been too limited to give his opinion any weight.

Whatever their value, both are now so scarce that a recent canvass of a number of leading supply houses failed to show any available. The writer was referred to one house for quills, and found them there, but these were all a gold nibbed, iridium pointed variety; certainly not the ancient type!

But of metal pens there is no end. These, too, are of early origin. Bronze pens were excavated at Pompeii, and we have other instances of their Roman use. These early pens copied the quill form, a form which we, today, find definitely suggested in our small "crow-quills" of steel, of which more will be said in a moment. Attempts were made to manufacture steel pens towards the close of the 18th century, but it was not until 1820 that Joseph Gillott in England made them practical, greatly improving their form, and by the introduction of machinery cheapening their price. Even



PENCIL POINTS



PEN-AND-INK SKETCHES BY ARTHUR L. GUPTILL



today Gillott pens still hold their place among the best made, and their fine and medium points seem to be in such general use among artists that we describe them first. One of the smallest of these, though not the smallest, is the "Crow-quill" (659), a most delicate point, making an extremely fine line unless pressure is applied, when it will yield a line of astonishing width for so small a pen. Also very fine is the Gillott lithographic pen (290), made for drawing on lithographic stone but popular for use on paper, and the Gillott mapping pen (291). This latter instrument is particularly facile for one so small, and is perhaps as well liked generally as any of the extremely fine ones. These three pens are relatively quite expensive, each point costing not far from ten cents; if not abused they will give a very fair length of service, but if repeatedly called into use for lines beyond their natural capacities they will soon fail. For the beginner such points are often dangerous, leading him into finicky ways. They are naturally better suited to small than to large work, and are at their best on smooth papers. The tiny Gillott tit quill and the almost equally small No. 1000 and No. 2000 are finer than are ever needed for the usual forms of pen drawing. It is well for larger drawings or for rougher surfaces or for any lines but the finest to turn to some such points as the Gillott 170, 303, or 404. These are not only better for all around work, particularly for the beginner, but are cheaper, ranging in the neighborhood of fifteen to twenty cents a dozen. The 170 is fine enough for almost any purpose, the 303 is a very good medium size, while the 404 will give as coarse a line as is usually needed. No. 1, about the size of the 303, is recommended by the makers for flourishing and ornamental pen work. When pens larger than the 404 are required it is as well to turn to any of the makes commonly on sale. Gregg recommended Esterbrook Bank pen, No. 14. For lettering of the type shown on most of the accompanying illustrations a ball or oval or dome pointed pen is good, and the same pen does for rather coarse lines of uniform width. For many types of decorative drawing wide stubs, such as are frequently used for lettering, are practical. These may be had in many sizes. Then there are the round pointed or "spoon-bill" pens, also primarily intended for lettering; these are suitable for some types of pen drawing, particularly work of a very large or bold nature where lines uniform throughout their length are needed.

These, then, are the pens most often used for drawing. There are special pens, to be sure, such as the "double line" pen, sometimes employed by bookkeepers for the ruling of two parallel lines with one stroke, and occasionally turned to by artists for novel effects; and the glass pen, giving a line of equal width throughout and permitting the making of a stroke in any direction. The fountain pen, too, is coming into greater use as a drawing instrument, though most of the waterproof inks do not work in it to advantage. Especially for sketch work where it is not convenient to have ink at hand

in bottle form the fountain pen is of value; the author for a long time carried one filled with a slightly diluted brown ink which gave interesting effects. Gold pens find favor with a few artists, too, but there is little chance that they will supplant the steel points for general use.

**PENHOLDERS.** As it is not uncommon for several pens to be employed on a single drawing it is convenient to have several pen holders, one for each of them. The crow-quill pens, and some of the other tiny points, require special holders, which may be purchased with them. In one type the round barrel of the pen is pushed on to a stock of approximately the same diameter. A member of cork slides down tightly to a convenient position, covering a bit of the upper end of the metal barrel. When the pen is not in use this member is pushed still further down to completely cover and protect the delicate point.

For the other pens, the forms of holder in general use for writing are satisfactory; in their purchase the only necessary care is to see that they are sufficiently small in diameter to enter the neck of a bottle without becoming soiled with ink.

It is generally preferable to have the holders for the various pens of different colors, or individually marked by notches or in some such way, so that each may be easily identified at a glance. Thus a red holder might always contain a Gillott 303 pen, a brown one a 404, etc. One would soon become accustomed to this arrangement and it would save time when changing from one pen to another.

**PEN WIPER.** One should have a small chamois or felt, or some practical sort of wiper for his pens and should keep them clean. Avoid one of linty character with loose particles to catch in the nibs, causing blots.

**INK.** Ink, like pens, is of early origin. Evidence of its use is found on papyri and manuscripts dating back more than 4000 years. A large part of this early ink was colored. Today most of the ink used for drawing is black, and much of it is waterproof. There are many kinds on the market which are satisfactory. Of American inks, "Higgins'" is one of the standards; of those made in France "Bourgeois' Encre de Chine Liquide" is good, while "Winsor & Newton's" and "Rowney's" are among the best of those from England. Most of the American inks, including Higgins', are put up in conveniently shaped bottles, not easily tipped over, with practical stoppers, fitted with quills to aid in filling ruling pens. The waterproof ink is essential when drawings are to be tinted with color or wet in any way as by the acid bath used in washing off a silver print. For other purposes where it is not to be exposed to moisture the ordinary black drawing ink is considered by many to flow better than the waterproof. If one is making drawings which are to be reproduced he should avoid extremely glossy inks, as they are not popular with the photo-engraver. Of the many colored inks on the market something will be said in a later chapter.



PAPERS. Bristol board is one of the most commonly used surfaces for pen drawing, and the better grades offer many advantages for this work. First of all it is smooth, which allows the pen to move over it in any direction without danger of the points stubbing in rough places. Again, it will stand a fair amount of erasing without serious injury (though erasing does frequently make it somewhat unsightly, destroying the gloss); it is firm enough to prevent minor irregularities of the surface under it, such as thumbtack holes in the drawing board beneath, from affecting it to any considerable degree,—a great advantage over some thin papers, which can hardly be worked upon unless bristol or some other smooth board is placed under them. It stays quite flat, too, unless a great amount of ink is used when it sometimes shows a tendency to buckle, and is stiff enough so the finished drawings may be easily handled. As a rule both sides are alike so if one side is ruined the entire sheet is not wasted. It is produced in various weights, two or three ply being those customarily employed, the two being rather thin but doing well for practice work, and the three a good average thickness. And it is not all of exactly the same surface but comes in different finishes, some very glossy, some smooth but only slightly shiny (and this is best for most purposes), and some dull. Some, too, is rather rough, called kid-finished; this is not as good for most pen work as are the smoother grades. We have touched on the fact that eraser marks show rather plainly, and this is especially true on the smoother grades. Likewise water makes dull spots of an unpleasant contrasting nature; also the board bends to form unsightly places if it is rolled and pressed or otherwise misused. Therefore, if the appearance of the finished drawing is important, it is well to protect the surface as much as is possible. When you buy ask for a good make, one which is not too soft or absorbent, and then be sure that the sheets have not been bent or dented or otherwise damaged, and never allow bristol board to be rolled tightly, if at all, and if you carry it rolled under the arm protect it from crushing if you wish it to keep its smooth appearance. One cannot be too careful of it.

If one wishes something which is damaged less easily, which stands erasing to better advantage, and which has a surface of a more interesting nature, let him try Whatman's hot pressed paper. This can be purchased in a form already mounted (ask for Whatman's hot pressed, mounted) or can be bought in sheets at smaller expense. These sheets may be used just as they are or, as they have a tendency to buckle greater than that of bristolboard, they may be stretched onto a drawing board. One means of doing this is as follows: choose a board at least an inch or two larger all around than the paper, and lay the paper loosely on this. With a sponge wet the paper thoroughly on the upper side, leaving about an inch of dry edge or margin all around. Allow the water to stand several minutes until the paper has swollen and buckled into a hilly surface. Then sponge off the superfluous water, leaving the

paper just damp. As you complete this operation slightly dampen the previously dry margins; at once apply strong mucilage or glue to these margins; by the time this is on, the paper will have become fairly flat again, though still hilly. Next turn the paper upside down (it is best to have help with this), being careful not to get glue on the board anywhere under the sheet, and press the glued margins tightly to the board until they adhere all the way around. The paper will still be full of humps; as the edges are pressed down it can be drawn a bit smoother (do not pull it too hard for if too tight it will break when dry) and shrinkage as it dries will do the rest. If you make sure that the glued edges are kept fast by rubbing them down once or twice with your knife handle or some other convenient object you will have, in a half-hour or less, a splendid surface of great strength: a surface showing injury or marks of erasing far less than bristol board. Of course one must not extend his drawing onto the glued margins, as it is almost impossible to remove them whole when the rest of the sheet is cut from the board. Usually they are allowed to remain until later when they are taken off at leisure by soaking them thoroughly with water until they are soft, when they may be washed or scraped off without trouble.

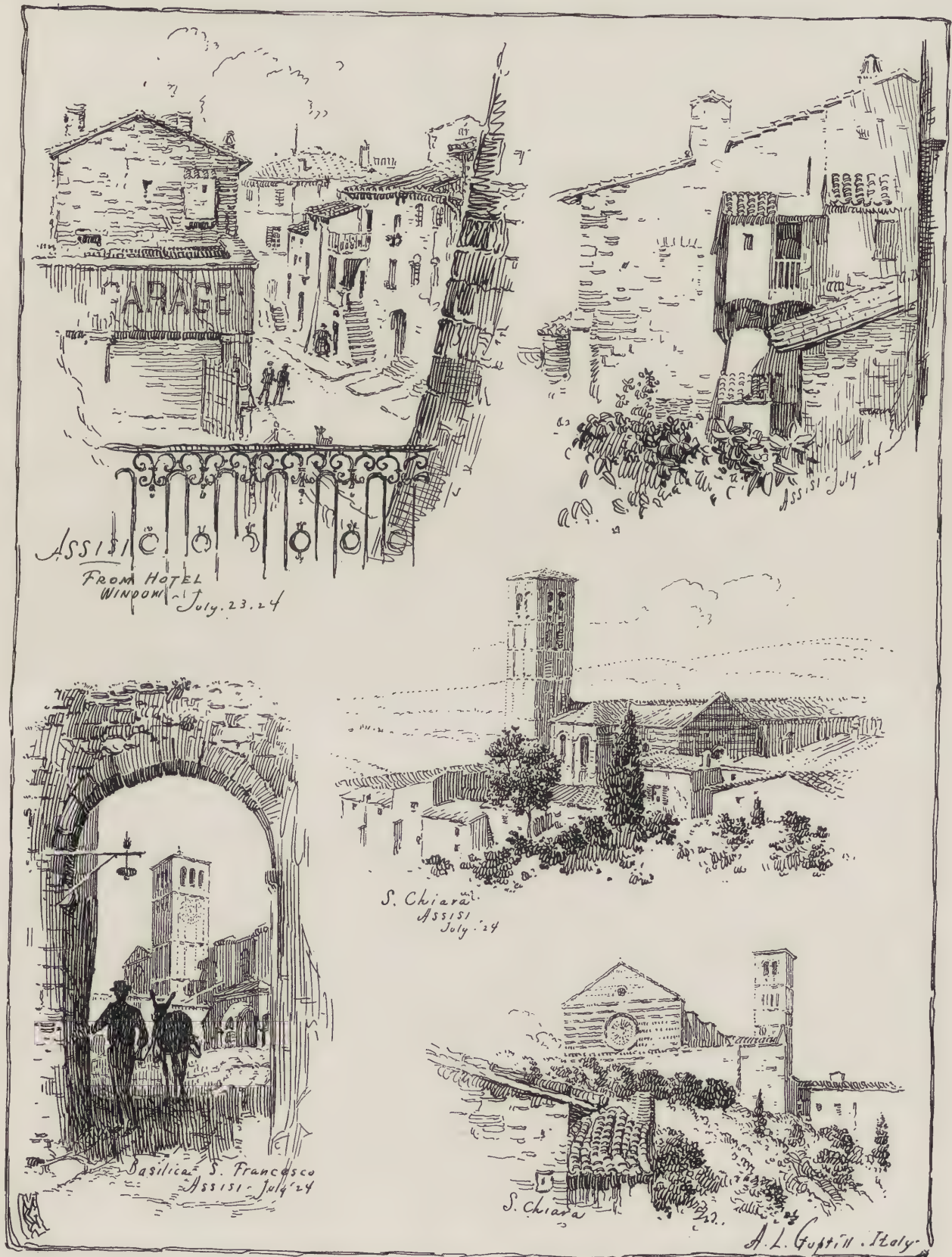
In addition to this Whatman's hot pressed paper there is another grade known as "cold pressed", somewhat rougher, as it is really a water color surface. Its roughness prevents pen work of the most perfect kind yet permits certain interesting effects, as all lines drawn upon it have a tendency to be irregular or broken. If pen drawings are to be tinted with color this is an especially good paper though the hot pressed paper stands washes well too. In respect to wash application both of these papers have an advantage over bristol board, which, with the exception of the kid finished grade, is not well suited to such work.

Besides the bristol boards and the Whatman's paper there are, of course, many other surfaces available which will take the pen well. Generally speaking such surfaces as are good for writing with a pen will do for drawing. The essential qualities to be sought are a fair degree of smoothness coupled with sufficient firmness to prevent the stubbing of the pen or the blotting of the ink and to allow the use of an eraser or knife for corrections without becoming absorbent or too unsightly in appearance. Some of the ordinary bond papers meet these specifications satisfactorily, especially those of the heavier weights and better grades.

The architect and his assistants frequently use tracing cloth for the making of pen drawings, first dusting it with prepared powder as for ruled work, and of course drawing on the dull side. The finished results may then be blueprinted, or prints in black and white, or brown and white, may be obtained, done by a similar process. Another advantage of this material is that its translucency allows it to be used over a previously constructed layout on which one may work as long as he wishes, the



PEN DRAWING—THE ESSENTIAL MATERIALS



PEN-AND-INK SKETCHES BY ARTHUR L. GUPTILL



## PENCIL POINTS

tracing cloth drawing being simplified to a representation of the essentials. It is interesting to note, also, that the photo-engraver, when making reproductions, can work from a tracing cloth drawing as inexpensively and well as from one on paper.

Tracing papers of the stiffer grades are sometimes used in the same way, but whereas the cloth is strong and will stand almost any amount of erasing, the paper is easily torn or pricked through by the pen and can scarcely stand rubbing at all.

Various chalk boards such as are used for making "scratch drawings" (mainly in imitation of wood-cut effects) are available, as are "Ross Boards" of a somewhat similar nature. These are described in the chapter "Drawing for Reproduction".

Tinted papers and boards are sometimes used, too, and occasionally drawings are done in white ink on black or very dark paper. These are among the unusual types of work discussed further on.

**DRAWING BOARD.** Almost any smooth drawing board of convenient size will do. It is best to have one large enough to afford some support to the hand in addition to the space given over to the paper, as one cannot do his best work in cramped space. If the board is at all rough it is advisable to put a few extra sheets of paper beneath the drawing paper as a means of securing a smoother surface. If paper is to be stretched it is just as well not to use a new board if an older one is available as the stretching process, with its water and glue, may cause warping, slight raising of the grain of the wood, and a somewhat unsightly general appearance. Whether a board is old or new, that part of it beneath the "stretch" (as the stretched paper is called) should be washed beforehand to make sure it is clean, as otherwise stains may come through the paper while it is damp, and show on the surface.

**THUMBTACKS.** If paper is not stretched it is usually thumbtacked to the board, so one should have a dozen or so medium sized thumbtacks. They may be pressed into some convenient part of the drawing board when not in use.

**PENCILS.** As most drawings are laid out in pencil before they are inked a few pencils are needed. On smooth bristols medium or rather soft grades are good, such as HB or B or 2B; for rougher paper harder points like the F or H or 2H are better.

**RULER.** Whether or not a scale ruler or such instruments as a T-square and triangles are needed depends entirely on the nature of the work.

**ERASERS.** There should be some kind of a soft or medium eraser for removing the pencil construction lines and for cleaning the entire sheet after the pen work is done. Art gum is excellent for this latter purpose and is one of the few erasers which can be used on smooth bristols without destroying the gloss. If it is employed for the final cleaning of the sheet it will not lighten or gray the pen lines to the extent that many erasers do. This is important if a drawing is for reproduction. A harder eraser, perhaps one of the red or green ones is good for the more stubborn pencil lines and if employed patiently it will remove ink lines as well. The usual ink erasers are too hard and gritty for most paper surfaces and should be used only with the greatest caution, if at all. The chemical ink eradicators will not remove most of the drawing inks.

**KNIFE.** Many artists prefer a good sharp knife or razor blade to anything else when it comes to making corrections. A knife is also a great convenience for many other purposes in connection with work of this kind.

**ERASING SHIELD.** A thin metal erasing shield such as draftsmen use is often almost indispensable when erasures are necessary as it may be so placed on a drawing as to leave exposed to the action of the eraser only such portions of lines as are to be removed. If lines are unintentionally grayed by an eraser they should always be blackened again before reproduction is attempted, as gray lines sometimes show ragged edges or even fail to reproduce at all.

**BRUSH OR CLOTH.** The habit of dusting one's paper every few minutes is an excellent one, as it prevents the accumulation of bits of lint and the like which might get into the pen and cause blots. A soft brush or a cloth which is not of a linty nature will do for this.

**BLOTTING PAPER.** Some accidents are sure to happen; occasionally a bottle of ink is splashed or spilled, or a pen drips. Have a few blotters on hand for such an emergency.

**BOTTLE HOLDERS.** This danger from spilled ink is so real that some artists, in order to lessen it, use metal bottle holders which are on the market. Such a holder is not, however, absolutely essential.



# WROUGHT IRON PRECEDENT, IV

By Gerald K. Geerlings

(EDITOR'S NOTE: The three preceding articles on wrought iron appeared in the June, July and September numbers. In the last installment the author began the consideration of the ornamental motifs which lend themselves naturally to the material, and in this issue completes that phase of the subject.)

IT WOULD SOUND like the proverbial fairy-tale to record that once upon a time there lived an architect who drew for his client a set of drawings, whereupon the latter said to him, "Go forth and hire me contractors who will build me this building as you have drawn it". It would seem like a tale within a fairy-tale if the same owner added, "Have you specified the ornamental iron work to be wrought? .... Excellent, my worthy knave, so be it!"

The modern architect rather expects to draw up two sets of plans. He puts forth his best efforts in the initial drawings but is fearful the while that they will serve only for the contractors' estimate and the owner's rejection. The second set consists of the architect's fallen hopes and his draftsmen's erasures, along with a generous sprinkling of makeshift substitutes in design and material.

Scarcely a single "w. i." notation dares remain. The "w"s are all replaced by "c"s because the costs ran too high.

Yet this wrought iron weeding need not necessarily occur.

When it is demanded that all wrought iron designs disappear under a rubbing machine because of high costs, it is frequently because the motifs have been drawn for a cast material rather than a wrought. Quite naturally the estimate is unreasonably high. Practically all building materials are either cast or carved; iron alone is wrought. Thus in approaching a wrought problem for the first time it is only natural that the designer should make use of those forms with which he is accustomed to work, and merely label the result "wrought iron". The lack of appreciation of the nature of wrought iron is well illustrated by the fact that some offices specify that an alternate bid be taken for cast and wrought iron on the same set of details. A little bit like

staging a race between goldfish and canaries! While one does one thing naturally, the other is left gasping for air.

In any building where the high cost of wrought iron will exclude its ultimate use, it is good generalship to give thoughtful consideration to the design of each item. The estimate will undoubtedly be

lower if the designer visualizes the execution at the forge of what he draws on paper. He must not expect a blacksmith to achieve in iron what a carpenter could do in wood or a sculptor in stone. Previous paragraphs have dealt with the inaptitude of double-curved mouldings in wrought iron, but rather the propriety of employing dentils and the use of certain simple sections for rails and stiles. What follows will deal with the charm of wrought iron when its embellishments are also kept

in character and limited generally to chisel marks, grotesque heads, floral forms, *retroussée* work, and various textures.

At this juncture it may be appropriate to briefly mention some of the carved Spanish arabesques which the student of wrought iron will sooner or later remember or discover in Prentice's book. It may be that the Spanish craftsmen were gifted with great foresight. Certainly they securely installed, intrenched and barricaded themselves in the Hall of Fame behind the many triumphant *tours-de-force* they achieved in iron. They probably foresaw the payday soon would dawn when craftsmen of all abilities would be put on a commercial basis of so-many-grilles-an-hour in order to properly supply their families with plenty of Packards and radios. And so, taking all the time they needed to carve in iron as though it were wood, they produced what man had not attempted before or since. Perhaps the craftsmen who are responsible for the carved



Photo by G. K. G.

## BRAGA, PORTUGAL

A wrought iron grille with a bold and colorful *retroussée* panel. It would be out of key except for the exterior brilliance of the vermillion roof tile and the variegated church wall.





*Photo by G. K. G.*

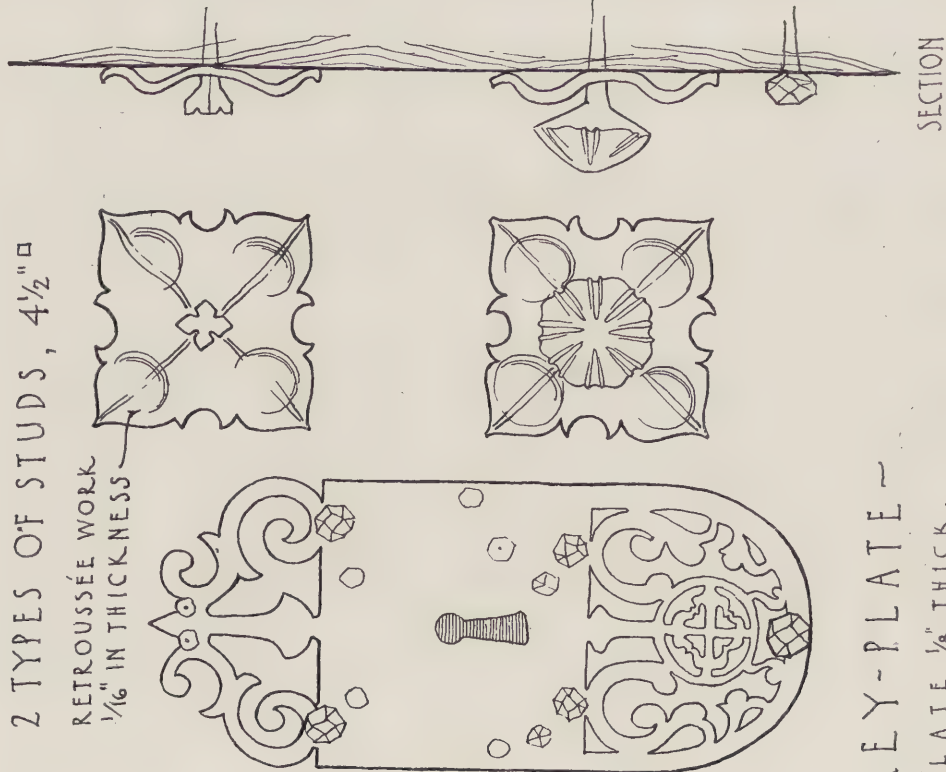


*Photo by G. K. G.*

FIGURE 1, DETAILED VIEWS OF THE MAIN EXTERIOR DOOR, CASA DEL CONDE DE TOLEDO  
KEY ESCUTCHEON, KNOCKER, AND RETROUSSEE STUDS



DETAILS OF EXTERIOR DOOR ~  
 "CASA DEL CONDE  
 DE TOLEDO."  
 TOLEDO, SPAIN.



b.f.g.

G.K.G.

FIGURE 2, DETAILS OF KEY ESCUTCHEON AND KNOCKER FROM THE CASA DEL CONDE DE TOLEDO



## PENCIL POINTS

arabesques were disappointed in love and had in life no other interests than their work. Their labors may have been done in the heat of religious fervor. Be that as it may, there are hardly more than two craftsmen in the country at the present time who could reproduce the originals in the same manner as they were forged. The finished treasures would be rightly regarded as museum pieces. A single arabesque would take an indefinite length of time to execute and could not be contracted for with a time-penalty attached. In short, carved iron work as beautiful as the Spanish classics, would scarcely be adaptable in this age when craftsmen are limited in their abilities and funds are curtailed for ornamentation purposes. Our concern here is with the problem of the modern architect: what can he design to the best interests of client and building, which can be readily fashioned by the craftsman. Both time and expense govern the architectural tastes of the twentieth century business man, and if the cost of wrought iron runs beyond what the owner thinks a bronze design would cost him there is but little likelihood that he will consent to the use of the former. And after all, why not treat wrought iron as it delights in being humored? Then it is simple to forge, pleasing to see and easier to buy.

A wrought iron surface is automatically ornamented by the treatment it assimilates on the anvil. It suffers martyrdom while the hammering lasts but it comes out smiling with high lights and black spots in a free-for-all mosaic which no subtle design could accomplish. "Texture" must therefore be jotted down as surface ornament number one, but second to it and "very popular in all models" and nationalities of wrought iron work, come chisel marks. Fig. 4 indicates at "a" the most common chisel mark ornamentation, and following that, some of the many possibilities in other shaped chisels and arrangements. The designer may here go as far as he delights in studying combinations and groupings of marks made by straight, curved or circular chisels on the red hot iron. The pattern should not be too complicated because it must be remembered that the craftsman has no pencil or chalk mark to follow on the glowing metal. He is compelled to trust to his eye for spacing the surface incisions. He cannot be hindered with too many chisels in hand or too complicated a design in mind. The result, moreover, would be less satisfactory than a simple procession of zig-zags easily hammered.

Our American cities are suffering under a grim decorum forced upon us by brick, concrete and steel.



Photo by G. K. G.

### THREE TYPES OF SPANISH HEARTH FORKS

The two at the sides are from Granada; the center one from Madrid. The high-lights are noteworthy. The handle of the fork on the right is rectangular in section, which accounts for the interesting twist.



Photo by G. K. G.

### HEARTH FORKS FOUND AT GRANADA

Note the high-lights on the left and middle forks. The scrolls are made by splitting the parent bar which is square in section. The two ladles are brass.



WROUGHT IRON PRECEDENT

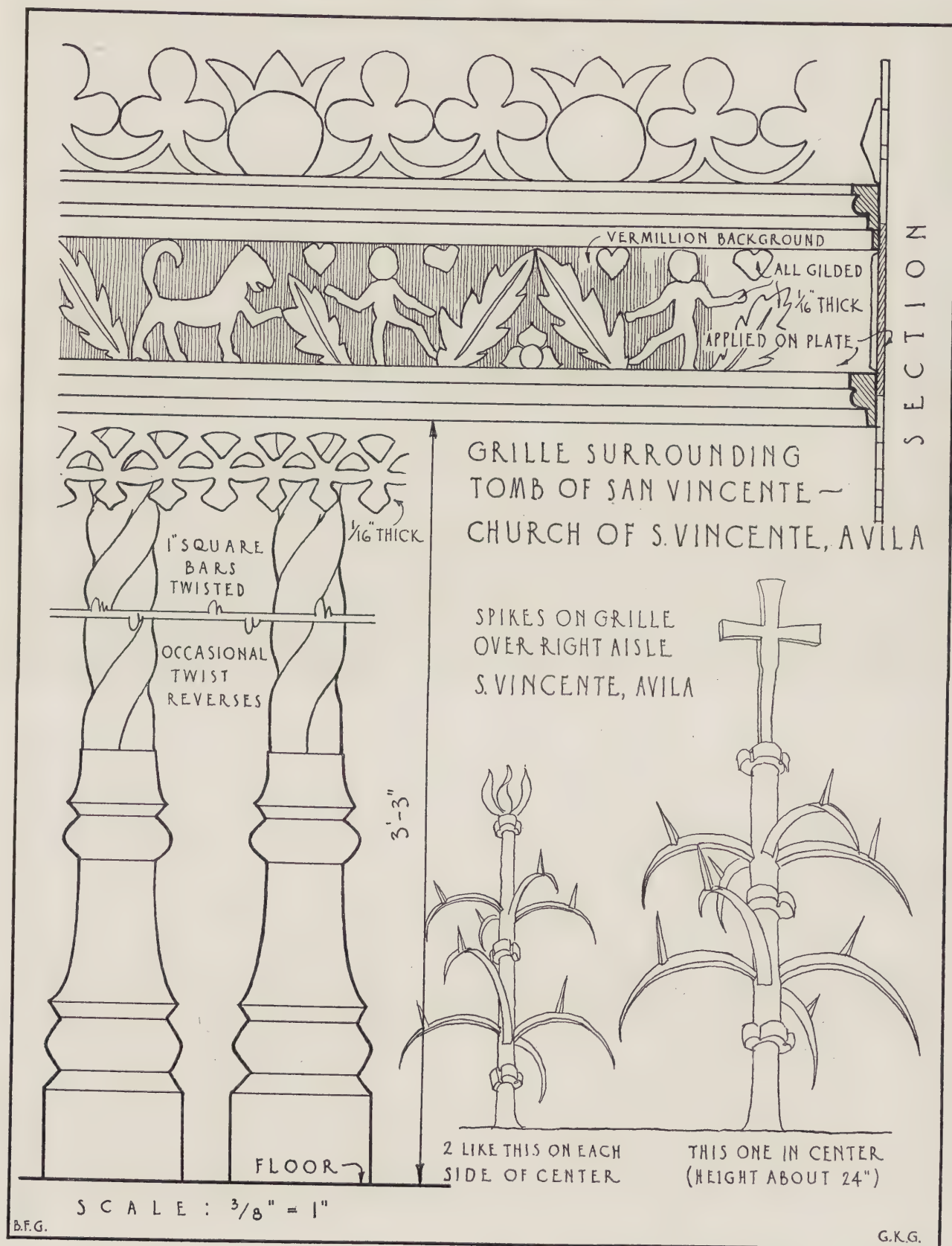


FIGURE 3, DETAILS OF GRILLE FROM CHURCH OF S. VINCENTE, AVILA



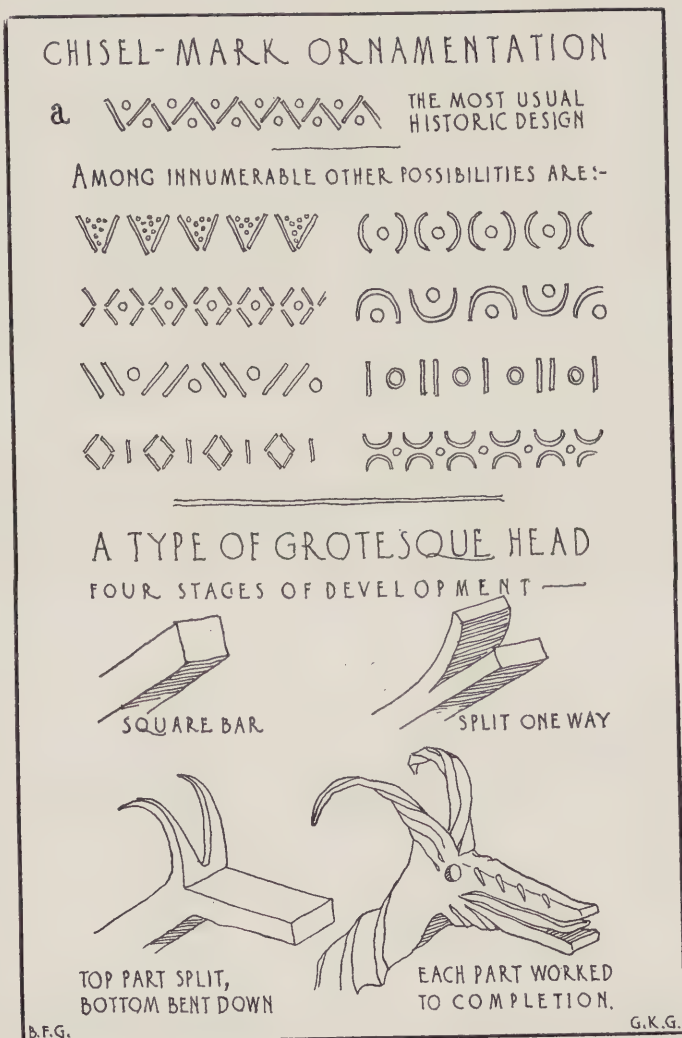
So forbidding must we appear that an eminent German on first seeing our lower Manhattan architecture exclaimed, "Geometry in stone!" Building materials and structural forms are governed by the exigencies of present day conditions and therefore cannot be radically altered, but in the embellishment of these forms—"geometry propositions"—there can be added the needed genial good humor and "comic relief". In all the ornamental material at the disposal of the architect none lends itself to frisking ways so well as wrought iron. This brings us to our next means of wrought iron ornamentation: grotesque heads.

In practically every grille or cresting there are certain to be loose ends, and what is a more delectable *coup-de-grace* than to hammer these into swallow-tailed fish or open-mouthed dragons? The illustration of the well-head at Bruck showed to what extent a craftsman with a sense of design and humor, or designing humor, may make fascinating creations from the commonplace. With what enlivening variety each panel is graced! Even in the more classic *chefs-d'oeuvre*, the cresting motifs, when not fiercely arrayed as spikes, are fantastic fruits, flowers, leaves or animal heads. It will not be considered an extravagance by the architect when he understands that a grotesque head as a termination for a spiral or cresting unit is easily wrought. At such parts the metal is not thick and therefore readily moulded. Even a thick bar is easily split at the end into three sections for a distance of an inch or two, in order to form a head of one section and two twisting horns of the two other parts (Fig. 4). To the sincere wrought iron craftsman, a specification for a series of these humorous heads as scroll terminations, etc. is the equivalent of a genial invitation to enjoy himself. If, however, he has no interest in his forge beyond its

monetary returns, he will be incapable of creating these ingenious grotesques. It is therefore of primary importance that the architect determine what types of craftsmen are estimating on his work, for in the end he will find that if the lowest bidding forge is a purely commercial enterprise, it cannot be expected to produce true wrought iron. The craftsman must revel in his work; each hammer blow must represent so much satisfaction in creating grace, harmony and humor, or his results are im-

poverished departures from the traditions of his guild.

A favorite means of ornamenting a running band or the elements of a floral cresting, is by the so-called "*retroussée*" work. Briefly, this consists of pounding out thinish plates or sheets of iron from the rear, resulting in the production of an embossed appearance (Figs. 1 and 2). The metal may vary from light-cardboard thickness to perhaps 1/16 of an inch. The design may or may not be pierced, generally not. The greater the thickness of the iron, the more urgent the need for heat in beating out the design from the back, while the thinner the metal, or the finer in scale the ornament, the more likely it is to be worked when cooling or cold. When the design is pierced it is often backed up by a





## WROUGHT IRON PRECEDENT

in parti, is drawn in Fig. 3, from a grille in San Vincente, Avila. Both are clearly indicative of the spirit of wrought iron when used in this manner: there is a continuous variety and imagination at play, without an attempt to compete with bronze by employing a small, regular, repeating motif. An Eastern bank which opened recently, has a band of *retroussée* work running around a hundred feet or more of counter screen. Aside from the rather exhausting labor which advertises itself, the fact that each bay is meant to exactly duplicate its neighbor, makes one skeptical from across the room as to its identity. It seems misspent effort to ask an iron-worker to fashion all panels alike when it would be simpler for him to work from a scale drawing and vary the design as he progressed. At best he cannot compete with a casting for complacent accuracy.

Even a cursory review of several types of *retroussée* panels makes it evident that there is usually a certain Falstaffian, happy-go-lucky spirit present. In the Prato example (Fig. 5) the leaves in the frieze-panel sport a decided bravado in the irregularity of the leaflets. Scarcely two pretend to be

twins. In the grille surrounding the tomb of San Vincente, Avila (Fig. 3), the lions, their keepers and the separating leaves vary like so many humans. The iron-worker could hardly have made them otherwise. Had he been working from an architect's drawing he might have had every intention of forging each unit like every other one, but how displeasing if he had! If there are panels it is well to follow the cue of the famous Siena grille in the Palazzo della Signoria, where each has a different design intentionally: alike in character but varying in detail.

Since the *retroussée* panel is not to be exactly duplicated, the craftsman's task is lightened if the length be not too great. The average of the Italian grille panels approximates five feet. Adjacent panels are likely to vary and cause criticism, so that if there is to be a minimum of design done, the craftsman would probably prefer to make two designs for panels and alternate them, rather than to try to make only one type which would repeat exactly. With an interval between panels the irregularities which might offend purists would be diminished because



Photo by Alinari

### VOLTERRA—WROUGHT IRON FLAG-POLE SOCKET ON THE PALAZZO DEI PRIORI

A variety of circular chisel-marks and simple terminations to simulate snake heads. The stone texture is also of interest.



of the greater difficulty in comparison. In height the Italian designs for the *retroussée* panels are often about the height of the repeating quatrefoil, and thus are seldom more than 10 inches. However, 10 inches in width makes an iron plate rather unwieldy when its length is considered as further complicating the problem. The success of the *retroussée* panel depends almost entirely upon the individuality of the craftsman executing it. The architect may have the scale—or even the full-size detail handsomely worked out, yet he cannot show on paper the exact elevation of every spot. By shading he can give some idea of what effect he had in mind, the degree of the modelling and the like, but all the little niceties and quirks which will make it an enjoyable ensemble, depend upon the interest, ability and personality of the man behind the hammer. There is an element of chance in it too, for all wrought iron work is somewhat like pastel or charcoal sketching—an unwitting stroke will sometimes strike the most charming note in the composition.

If the architect would make the craftsman feel

that he is attaching great importance to the execution of the iron work, he does well to make frequent trips to the forge, when that is possible, or else to send an able and sympathetic representative. At best, iron is difficult to realistically represent on paper, so that much can be done by directions and inspection at the forge. In such supervision it is assumed, of course, that the architect knows whereof he speaks; if not it is far better that he hold his peace and let the craftsman feel his interest but not his criticism.

A word only at this point about textures and finishes: there is no need for worry if certain surfaces are left without ornament of any kind. There should be plain bands to offset embellished ones. At the anvil there are a number of resources at the command of the workman, which by way of beating or brushing the red-hot surface will eliminate any undesirable monotony. Everything in moderation, of course, so that there should be no such overdoing of untouched surfaces as might appropriately be done in wood.

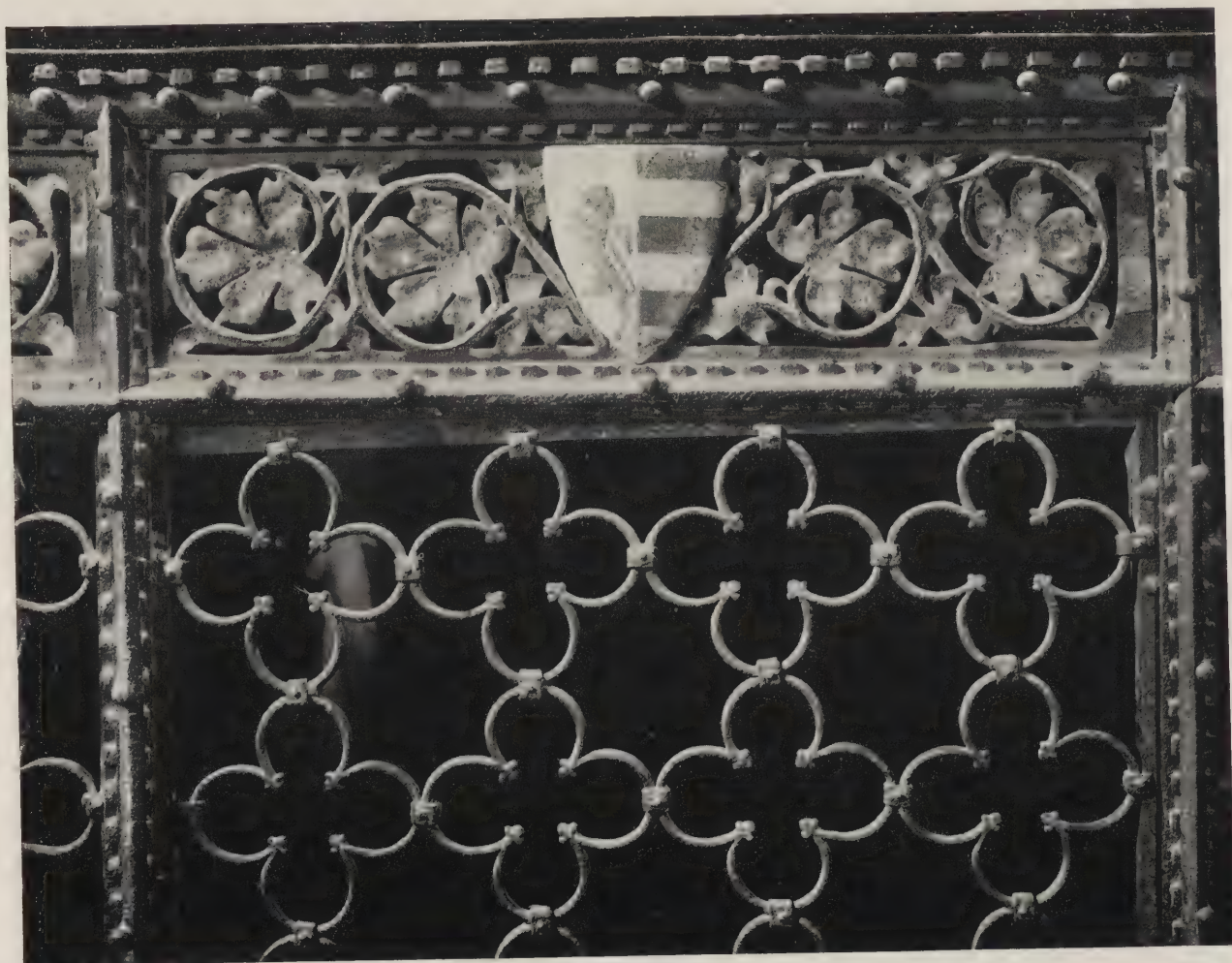


Photo by Alinari

FIGURE 5, PRATO—WROUGHT IRON GRILLE IN CATHEDRAL

There are four vertical sections to the grille, each having an upper and a lower division. All the upper divisions have 4 quatrefoils in width and height (31"), while the lower have 4 in width but 5 in height (39"). The stiles are 2½" wide. The crowning denticular rail is 4" high. The *retroussée* panel is 6" high; shield painted white and red; pierced leaves at side, gold.



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





WATER COLOR BY CASS GILBERT

*Size of Original, 11½" x 18"*

*Cathedral Cloister, Monreale*





WATER COLOR BY CASS GILBERT

*Size of Original, 13¼" x 19½"*

*Courtyard, Leicester Hospital, Warwick*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





CRAYON AND PASTEL DRAWING BY THEODORE DE POSTELS  
INTERIOR OF PENNSYLVANIA TERMINAL, NEW YORK



PLATE XXXIV

VOLUME VII

NUMBER 1)

*This drawing was made on cream colored tracing paper with crayon and pastel. It is a companion drawing to the color rendering of the exterior of the Pennsylvania Terminal reproduced in the August issue of this journal.*





PEDIMENT GROUP BY GAETANO CECERE  
FIGURE COMPOSITION FOR STAMBAUGH MEMORIAL AUDITORIUM





PLATE XXXV

VOLUME VII

NUMBER 10

*This unusually composed pediment group by Gaetano Cecere is for the Stambaugh Memorial Auditorium at Youngstown, Ohio. The illustration above shows the group in place. The photograph reproduced on the other side of this sheet was made from the working model used on the job for carving the final version in limestone. The architects for the building were Helmle and Corbett of New York.*





PENCIL RENDERING BY RICHARD M. POWERS  
DOORWAY, HOUSE OF WALTER S. HAMMONS, ESQ., CUMBERLAND FORESIDE, MAINE

PENCIL POINTS



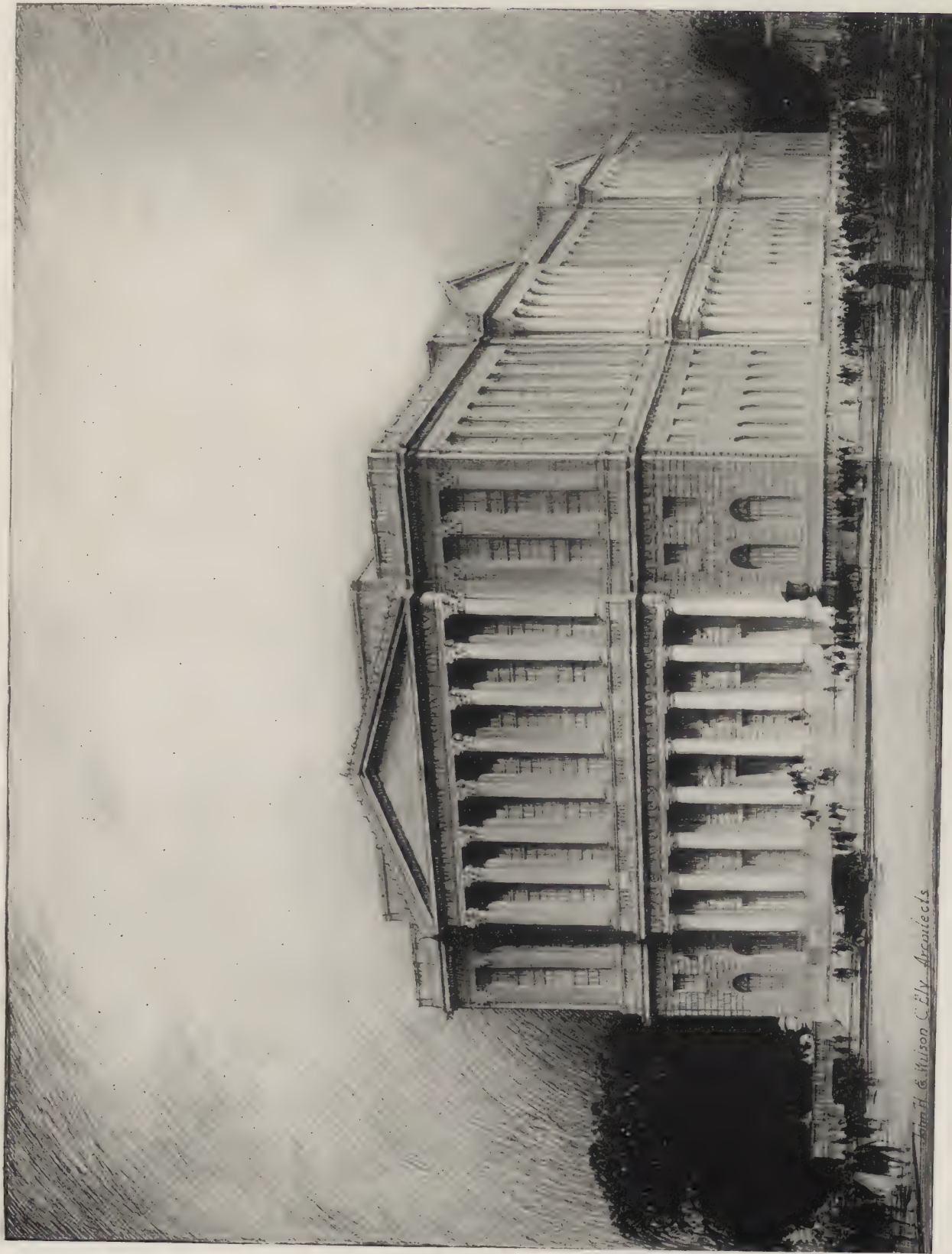
PLATE XXXVI

VOLUME VII

NUMBER 10

*This plate shows another of the charming pencil studies made by Richard M. Powers, whose work was the subject of the leading article in the September issue of PENCIL POINTS. Little and Russell were the Architects for the house.*





DRAWING BY CHESTER B. PRICE  
MUTUAL BENEFIT LIFE INSURANCE COMPANY BUILDING, NEWARK, N. J.



PLATE XXXVII

VOLUME VII

NUMBER 10

*This pencil drawing by Chester B. Price is about 26" long and is another example of this artist's exquisite manner of rendering architectural subjects at a comparatively small scale. John H. and Wilson C. Ely are the architects of the building.*



# THE RICKER MANUSCRIPT TRANSLATIONS

By Thomas E. O'Donnell

The following short summary of the translations made by Dr. N. Clifford Ricker of the University of Illinois will serve to introduce a series of articles, each devoted to a digest of one work. Each article will bring out the essential information set forth in the book and will be illustrated where possible by selected plates from the original publication. In this way our readers will at least make the acquaintance of some of the most notable writings on architecture which would otherwise be difficult or even impossible of access either by reason of their rarity or of their being written in foreign languages.—EDITOR.

ONE OF THE LARGEST COLLECTIONS of original manuscript translations of foreign books upon architectural subjects in this country, is that in possession of the Ricker Library of Architecture, at the University of Illinois.

The late Dr. N. Clifford Ricker, who for over forty years was head of the Department of Architecture, and for twenty-seven years of that time also served as Dean of the College of Engineering, during the latter years of his life devoted a considerable part of his time to the translation of valuable French and German treatises upon architecture and the allied arts. This work was begun by Dr. Ricker quite early in his teaching career, when he found it necessary to translate portions of foreign books on architecture, and preparing the work through some duplicating process so that it could be used as a text book by his students. These early translations were usually upon some practical phases of design, construction, history of architecture, heating and ventilation. His later and more important works were intended for the use of advanced and graduate students, faculty, and for library research. They were generally upon some phase of the history of architecture, theory of architecture, or upon the history of art generally, while a few were upon phases of advanced construction.

Many of these are of great value to the architect and designer, especially the four volumes on the *Theory of Architecture*, by Guadet; the *Rational Dictionary of French Architecture*, by Viollet-le-Duc, in eleven volumes; and also many of the volumes on the history of art and architecture by Durm, Hartman, Benoit, Lubke, Perrot and Chipiez, and others.

These manuscripts were all neatly typed by Dr. Ricker himself on special manuscript paper, and have been recently bound in handsome leather-backed bindings to make them uniform with the original volumes. They are now housed in the Ricker Library where they form a valuable part of what is one of the large architectural libraries of the country. The following is a complete list of the Ricker Manuscript Translations now on file there:

## EARLY TRANSLATIONS

*Made for and Used as Text by Students in Architecture, in the University of Illinois.*

DIEHL, J. P.—*The Statics of Architectural and Engineering Structures*. Arched Construction. Vol. 1, Section 4 of the Handbook of Architecture. Darmstadt, 1883. Trans. by Dr. N. Clifford Ricker in 1885. University Blueprint, Urbana. Illustrated.

KEARSTEN, C.—*Reinforced Concrete Construction*. A Guide for Study and Practice. Berlin, 1915. Trans. by Dr. N. Clifford Ricker in 1916. University Blueprint, Champaign, Illinois. 2 vol. text bound in one. 1 vol. Illus. bound separately.

LUBKE, WILHELM.—*History of Architecture*. A part of Vol. 1, trans. by Dr. N. Clifford Ricker. No date. University Mimeograph Print, Urbana, Illinois. Bound in 2 vol.

REDTENBACHER, RUDOLPH.—*The Esthetics of Modern Architecture*. Berlin, 1883. Complete trans. by Dr. N. Clifford Ricker in 1884. University Blueprint. Illus. Urbana, Illinois.

REDTENBACHER, RUDOLPH.—*The Esthetics of Modern Architecture*. Berlin, 1883. An abridged trans. by Dr. N. Clifford Ricker in 1888. University Blueprint. Illus. Champaign, Illinois.

REDTENBACHER, RUDOLPH.—*Guide to the Study of Mediæval Architecture; Elementary Forms of German and French Romanesque and Gothic*. Berlin, . . . Trans. by Dr. N. Clifford Ricker in 1899. University Mimeograph. Illus. Urbana, Illinois.

MULLER-BRESLAU.—*Graphic Statics*. Vol. 1. From the German. Trans. of the first eighty-six pages, by Dr. N. Clifford Ricker in 1890. Original manuscript in handwriting. Urbana, Illinois.

PLANANT, PAUL.—*The Heating and Ventilation of Occupied Buildings*. Paris, 1880. Trans. by Dr. N. Clifford Ricker in 1885. University Blueprint from handwritten copy. Illus. Urbana, Illinois.

WAGNER, H., BUHLMAN, J., AND TIERSCH, A.—*Architectural Composition*. Berlin, . . . Second edition. Trans. by Dr. N. Clifford Ricker in 1900. University Mimeograph. Urbana, Illinois.

WHITTMANN, . . .—*Statics*. A handwritten copy or translation by Dr. N. Clifford Ricker of an early text on graphic statics. No date. University Blueprint. Illus. Urbana, Illinois.

## MAJOR TRANSLATIONS OF FRENCH AND GERMAN TREATISES ON ART AND ARCHITECTURE

By Dr. N. Clifford Ricker.

BENOIT, FRANÇOIS.—*Manuals of the History of Art and Architecture. Mediæval and Modern*. Paris, 1912. Trans. by Dr. N. Clifford Ricker in 1913, 2 vols. Typed manuscript. Bound in 2 vols. Urbana, Illinois.



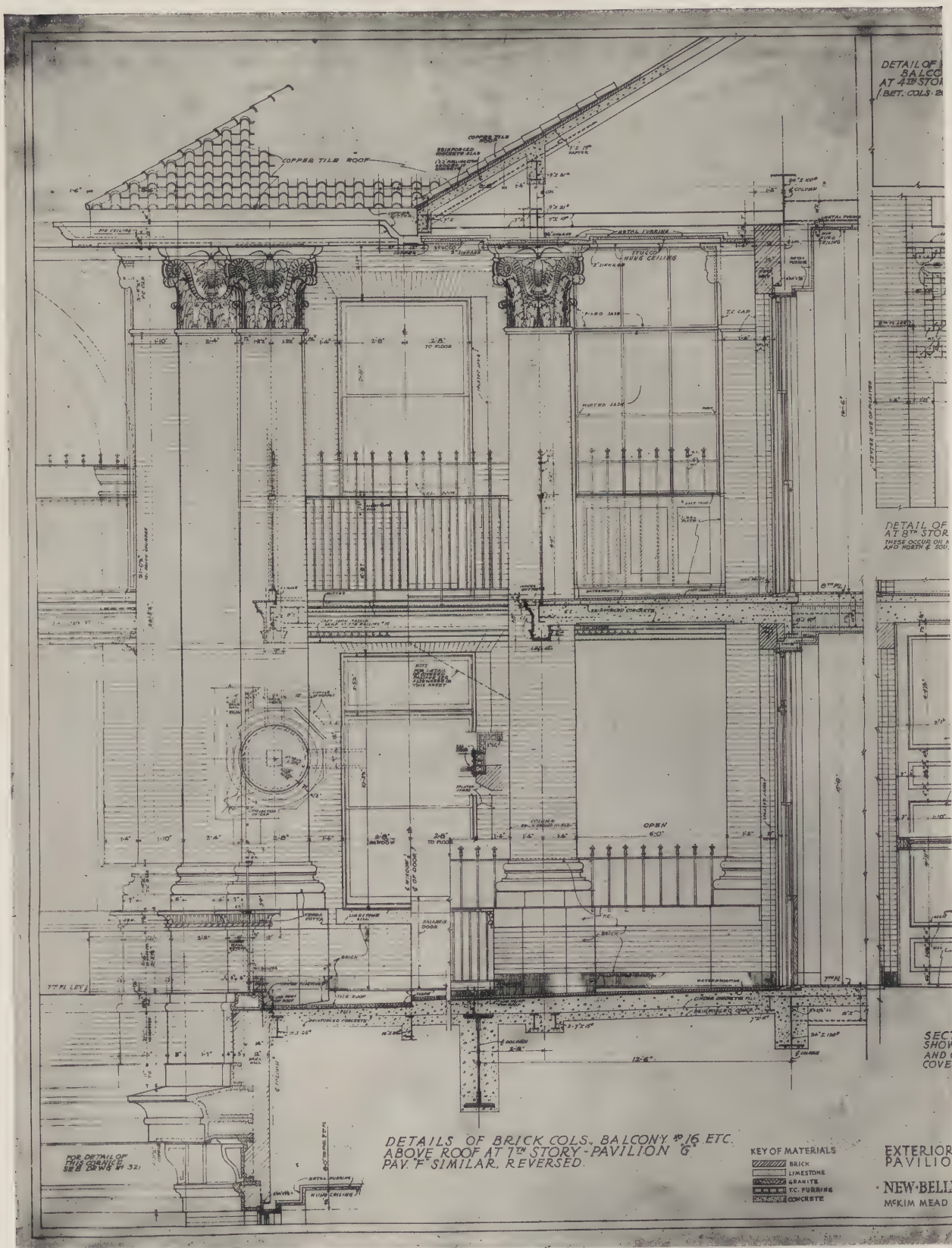
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 1. Grecian Architecture. Darmstadt, 1892. Second edition. Trans. by Dr. N. Clifford Ricker in 1903. Typed manuscript, bound. Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 1. Grecian Architecture. Leipzig, 1910. Third edition. Trans. by Dr. N. Clifford Ricker in 1911. Typed manuscript, bound, Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 2. Etruscan, Christian, Byzantine and Mohammedan. Stuttgart, 1905. Second edition. Trans. By Dr. N. Clifford Ricker in 1909. Typed manuscript, bound. Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 2. Roman architecture. Stuttgart, . Second edition. Trans. by Dr. N. Clifford Ricker in 1909. Typed manuscript, bound. Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 5. Italian Renaissance Architecture. Stuttgart, 1903. (Early edition). Trans. by Dr. N. Clifford Ricker in 1905. Typed manuscript, bound. Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 5-1. Renaissance Architecture in Italy. Leipzig, 1914. Second edition. Trans. by Dr. N. Clifford Ricker in 1916. Typed manuscript, bound. Urbana, Illinois.
- DURM, JOSEF.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 5-2. Renaissance Architecture in Italy. Leipzig, 1914. Second edition. Trans. by Dr. N. Clifford Ricker in 1916. Typed manuscript, bound. Urbana, Illinois.
- GUADET, J.—*Elements and Theory of Architecture.* Paris, no date. 4 vols. Trans. by Dr. N. Clifford Ricker in 1916. Typed manuscript, bound in 4 vols. Urbana, Illinois.
- HARTMAN, K. O.—*Architecture in its Development from its Origins to the Present Time.* Leipzig, 1911. 3 vols. Trans. by Dr. N. Clifford Ricker in 1912. Typed manuscript, bound in 2 vols. Urbana, Illinois.
- HASAK, MAX.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 4. Romanesque and Gothic Architecture. Division 3,—Church Architecture. Stuttgart, 1902. Trans. by Dr. N. Clifford Ricker in 1910. Typed manuscript, bound. Urbana, Illinois.
- HASAK, MAX.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 4. Romanesque and Gothic Architecture. Division 4,—Details of Church Architecture. Stuttgart, 1903. Trans. by Dr. N. Clifford Ricker in 1910. Typed manuscript, bound. Urbana, Illinois.
- LUBKE, WILHELM.—*History of the Renaissance in France.* Stuttgart, 1885. Trans. by Dr. N. Clifford Ricker in 1921. Typed manuscript, bound. Urbana, Illinois.
- LUBKE, WILHELM.—*History of the Renaissance in Germany.* Stuttgart, 1882. 3 vols. Trans. by Dr. N. Clifford Ricker in 1922. Vols. 1 and 2—manuscript typed and bound. Vol. 3 left unfinished at time of his death. Urbana, Illinois.
- PERROT, GEORGES, AND CHIPIEZ, CHARLES.—*History of Art in Antiquity.* Paris. Vol. 7, 1898. Vol. 8, 1903. Vol. 9, 1911 and Vol. 10, 1914. Trans. by Dr. N. Clifford Ricker in 1919-20. Typed manuscript, bound in 4 vols. Urbana, Illinois.
- REDTENBACHER, RUDOLPH.—*The Architectonics of Modern Architecture; an Aid to the Solution of Architectural Problems.* Berlin, 1883. Trans. by Dr. N. Clifford Ricker in 1884. Typed manuscript, bound. Urbana, Illinois.
- STIEHL, OTTO.—*Handbook of Architecture (Series). Part II. Architectural Styles.* Vol. 4. Romanesque and Gothic. Division 2—House Architecture. Leipzig, 1908. Second edition. Trans. by Dr. N. Clifford Ricker in 1913. Typed manuscript, bound. Urbana, Illinois.
- UNGEWITTER, G.—*Manual of Gothic Construction.* Leipzig, 1890. 2 vols. Trans. by Dr. N. Clifford Ricker in 1920-21. Typed manuscript, bound in 2 vols. Urbana, Illinois.
- VIOLLET-LE-DUC, EUGENE EMANUEL. — *Rational Dictionary of French Architecture, from XI to XVI Centuries.* Paris, 11 vols. Trans. by Dr. N. Clifford Ricker in 1919. Typed manuscript, bound in 11 vols. Urbana, Illinois.
- VON BEZOLD, DR. GUSTAV.—*Handbook of Architecture (Series). Part II, Architectural Styles.* Vol. 7. Architecture of the Renaissance in Germany, Holland, Belgium, and Denmark. Leipzig, 1908. Trans. by Dr. N. Clifford Ricker in 1910. Typed manuscript, bound. Urbana, Illinois.
- VON GEYMULLER, BARON HEINRICH.—*Handbook of Architecture (Series). Part II, Architectural Styles.* Vol. 6-1. French Renaissance Architecture. Stuttgart, 1898. Trans. by Dr. N. Clifford Ricker in 1914. Typed manuscript, bound. Urbana, Illinois.
- VON GEYMULLER, BARON HEINRICH.—*Handbook of Architecture (Series). Part II, Architectural Styles.* Vol. 6-3. French Renaissance Architecture. Stuttgart, 1898. Trans. by Dr. N. Clifford Ricker in 1914. Typed manuscript, bound. Urbana, Illinois.
- VON ESSENWEIN, AUGUST.—*Handbook of Architecture. Part II, Architectural Styles.* Vol. 4. Romanesque and Gothic. Division 1,—Military Architecture. Darmstadt, 1889. Trans. by Dr. N. Clifford Ricker in 1918. Typed manuscript, bound. Urbana, Illinois.



[ 623 ]



# PENCIL POINTS



DETAILS OF CONSTRUCTION — NEW BELLEVUE HOSPITAL, NEW YORK  
McKIM, MEAD & WHITE, ARCHITECTS





# W H I T T L I N G S

## AMERICAN ACADEMY IN ROME

FROM A LETTER recently received by C. Grant La Farge, Secretary, from Gorham P. Stevens, Director, we quote the following:

"Prof. Showerman's successful Summer School—over seventy students—came to an end on August 14, when 52 were given certificates. Forty-seven then went with him to Pompeii for a few days, a trip outside the program. Experience has shown him that the number should be limited to sixty, with discrimination in favor of experienced teachers. The enrollment represented 21 states, the District of Columbia, and Canada. There were 20 university teachers, 47 high school teachers and 1 normal school teacher, all in the classics.

"A young Philippino sculptor has registered. He is the holder of a fellowship from the United States Government (section of the Philippines).

"Former classical Fellow, Miss Marion Blake, registered with us for special work in connection with the thesis on Roman pavements which she wrote while here as a Fellow.

"My activity has been largely absorbed with problems concerning our various undeveloped properties; namely, the lot between the Main Building, the Villa Aurelia, and the Villa Chiaraviglio; lot No. 2; lot No. 5; and a system of watering lots No. 2 and No. 5. Some of my studies are for temporary fencing in of lots No. 2 and No. 5; others

for permanent improvements. I am planning to send over estimates and drawings for the various items.

"The gifts were, Lire 1000 for the Library from Prof. Shepherd Stevens; Lire 665 for the Library from the 4th Summer Session; and several books for the Library.

"Professor Kelsey (a Councilor of the Academy) and a number of his assistants are in town. They are planning research work at Mount Athos and also Mount Sinai. Professor Lake of Harvard is a member of the party. He is Professor of Ecclesiastical History at Harvard.

"The Saint Gaudens tablet has been put in place, marking the studio which he occupied for four years as a student."

## PHOTOGRAPHS BY J. FRANK COPELAND

OUR READERS WILL be interested to know how Mr. Copeland makes the very interesting photographs which we have reproduced from time to time in PENCIL POINTS, and one of which appears as a frontispiece in this issue.

The photographs are made with a "3A Kodak", equipped with a Zeiss Anastigmat lens. A "K. 2" filter is used in most cases to obtain some degree of color correction. Our reproductions are made from print enlargements made with a "Verito" diffusing lens and printed on "vitava"—rapid black, (rough and glossy) paper and sometimes on "azo" No. 2. Mr. Copeland seldom uses a tripod for his camera but takes snapshots usually at one fifth or one tenth seconds to insure sufficient exposure when the color filter is used.



LITHOGRAPH BY W. G. FRENCH  
*Temple of Amon at Luxor, Egypt*





FROM THE WATER COLOR BY NELSON C. CHASE  
STATE STREET, BOSTON





DRAVER WILSON

#### THE BOSTON ARCHITECTURAL CLUB

THE BOSTON ARCHITECTURAL CLUB is pleased to announce, to those who are interested in its classes, that four of its students have won scholarships this year.

The most important was the winning of the Rotch Traveling Scholarship by Louis Skidmore, as already noted by PENCIL POINTS. Mr. Skidmore has worked at the Club since completing his course at the Massachusetts Institute of Technology, and was massier of the Atelier in 1925. He has been a great inspiration and help to the younger members of the classes. "Skid" is planning to go abroad in November to spend the two years of his scholarship in study and travel, and on his return intends to go into business in Chicago.

Edward D. Stone has again won the special student scholarship at Harvard, which he first won last year, on which occasion he was introduced to the readers of PENCIL POINTS.

The Princeton Architectural Scholarship, which was held last year by Edward F. Allodi of the Club, has been won in competition this year by George Elliston Brennan. Mr. Brennan was born in Gloucester, Mass., in 1904, and received his schooling at the Cambridge Public Schools. He has studied at the Club for the past five years, during which time he has been employed by Blackall, Clapp & Whittemore in Boston. Brennan has been at all times a most active and interested member of the Club, and has won several medals in Class A, and last year was sous-massier of the Atelier.

Draver Wilson of the Club has won a student's scholarship at Yale. This is the first time a member of the Club has studied at that school, in spite of the success and renown being gained there by Mr. Otto Faelton, an ex-member of the Club, many of whose student sketches still hang on the walls of the Atelier. Mr. Wilson was born in 1903, in Stillwater, Minn., where he went through the public school. He studied at the Massachusetts Institute of Technology for two years and then at the Club. Last year he went to Yale and has been awarded this scholarship for the general excellence of his year's work there.

The Club is naturally much pleased by the success of these men, and feels that it is very largely owing to the

leadership of Messrs. Haffner and Carlu, and their interest in the Club classes.

Stone, Brennan and Wilson are the sort of men who will gain a great deal by their work in the schools to which they are going, and will, in all probability, be contenders for the Rotch Scholarship of next year, while Skidmore is expected to be one of the most brilliant of the holders of the Scholarship.

#### THE STUDIO CLUB

THE STUDIO CLUB of The Architectural League of New York is about to start its fourth year of activity. Under the leadership of Birch Burdette Long and J. Scott Williams, members of the club will gather one or two nights a week to work on life-drawing, etching, and lithography. The club is equipped with lithographic and etching presses and paraphernalia and expects to enjoy the guidance of an expert printer of lithographs and etchings who will probably be in attendance one evening a week during the winter season. A lithograph by W. G. French, one of the members of the club, is reproduced on page 625.

During the past years, many experiments have been made in the various graphic mediums, resulting in some cases in the development of new techniques of manipulation and in the production of unusual effects. This experimentation will be continued.

There is no formal instruction offered but students learn much from each other during the year, as the progress made to date evidenced in the annual exhibitions of the club will testify. This season it is hoped that the growing interest in graphic processes will result in increased membership in the club, which is open to members of the League.

#### A CORRECTION

PARAGRAPH D of Article 6 in Mr. Beach's specifications for plumbing and Drainage on page 449 of the July issue of PENCIL POINTS should be revised to read:

(D) BRASS PIPE shall be semi-annealed, seamless-drawn tubing, iron-pipe sizes, of approved make. Fittings shall be cast, of same proportion of copper and alloy, and of extra-heavy, cast-iron steam pattern.



GEORGE E. BRENNAN



## ADDRESSES WANTED

Anyone knowing the correct address of the following will confer a favor by sending them to this office, PENCIL POINTS PRESS, INC., 19 East 24th Street, New York City.

ALABAMA—Robert Blakey and Charles J. Snook, Jr., Auburn.

CALIFORNIA—P. A. Dunn and Harry Eckes, Hollywood; A. D. Baker, Miss Maria M. Berger, William G. Carrington, Emery Hirschman, Charles Holly, Earl A. Raftery and A. L. Rogelmair, Los Angeles; W. L. Harrison, Oakland; B. T. Syvertsen, Pasadena; C. A. Fletcher, Santa Barbara; J. H. Garrison, Watts.

COLORADO—W. H. Klamburg, Denver.

CONNECTICUT—R. G. Kennedy, Richard A. Kimball and A. Lord, New Haven; Waldron Faulkner, Washington; Arthur W. Varian, Wilton.

FLORIDA—Frederick C. Arnold and Jean A. Eddington, Fort Lauderdale; E. J. O'Callaghan, Hialeah; W. W. Evans and Miss Elsa M. Greiser, Jacksonville; M. C. W. Sundin, Lakeland; W. Baggesen, Thomas A. Beggs, Miller Bond, J. C. Cottle, W. A. Desport and Frederic Nickerson, Miami; Edgar Albright, Miami Beach; Irvin L. Clark, Orlando; Huel L. Crockett, West Palm Beach.

GEORGIA—J. C. Brown, C. Du Bose, Selmon Franklin and Robert Tate, Atlanta.

IDAHO—Marcus Bausch, Moscow.

ILLINOIS—W. W. Benn, E. M. Fuller, A. T. Gelinan and K. G. Reeves, Champaign; D. D. Ehresman, Fred Guy, Erwin J. Hatzfeld, Harry R. Ladehoff, Emil L. Larson, T. Rissman, Hillard R. Russell, Carl Shparago and John Walker, Chicago; Walter Ellison, Springfield; Francis D. Hurley, Urbana.

INDIANA—Harold L. Davis, Bedford.

KENTUCKY—Angelo Rich, Harrison.

MARYLAND—Everett L. Gonyou, Baltimore.

MASSACHUSETTS—F. W. Keith, Belmont; H. L. Newhouse, Jr., Boston; Jeremiah Schmidt, Cambridge.

MICHIGAN—John H. Barry, J. H. Kelsey, Robert T. Moore, J. S. Scheithe, Chester Asa Sirrine and Russell Triquet, Ann Arbor; Philip J. Funke, R. G. Nairn and Julius Stropp, Detroit; A. D. Badour, St. Joseph.

MINNESOTA—Charles Schwartz, Minneapolis.

MISSOURI—Glenn F. Johnson, Cape Girardeau; Joseph L. Hurst, St. Louis.

NEW JERSEY—F. C. Bulkeley and Paul Haan, Newark; John Rudy Hoelzel, Salem.

NEW YORK—William J. Bovers and Paul L. DuBois, Jr., Brooklyn; Frank B. Heathman, Jr., Ithaca; G. Vance Temple, Jamaica, L. I.; Jean B. Patende, Mill Neck, L. I.; Thomas G. Coles, Harrison Gill, Richard W. Harr, Raymond Jordan, Miss Lillian Kennedy, Harry L. Miller, Jess Reed and Elias L. Ruiz, New York City; Robert H. Maguire, Pedro Mendez and W. N. Serhus, Syracuse.

NORTH CAROLINA—F. K. Dawson, Raleigh.

OHIO—Pierce Sperry and Charles K. Stewart, Columbus; Edward Kromer, Grandview; Edward E. Packer, Toledo.

OKLAHOMA—Cecil Doty, Stillwater.

OREGON—Edward S. Jewell, Corvallis; Kenneth Birkemeier, Grace Coey, Camille Harris, Emogene Richards, E. G. Slawson and A. Woods, Eugene; Hal F. Voight, Jr., Vernonia.

PENNSYLVANIA—William M. Burke, Drexel Hill; William F. Frank, Edwin A. Keeble, Thomas B. Rothenberger and Louis Toukonogy, Philadelphia; Lewis Fink, J. F. McWilliams, Jr. and Leo S. Milianoski, Pittsburgh.

SOUTH CAROLINA—G. T. Bryce, Clemson.

TEXAS—M. S. McDougal, College Station; H. A. Magnuson, Dallas; Wilford S. Bogue, Fort Worth.

WASHINGTON—D. W. Hilborn and Robert Warnick, Seattle

WYOMING—Harry L. Nelson, Laramie.

CUBA—Mrs. D. M. Borrerode Lujan, Havana.

CHINA—Lan Fook Tai, Shanghai.

## PERSONALS

JOHN B. MCCOOL, ARCHITECT, has opened an office at 49 Geary St., San Francisco, Cal.

HUGH G. JONES, ARCHITECT, has removed his office to 127 Stanley St., Montreal.

WYTHE, BLAINE & OLSON, ARCHITECTS, have removed their offices to 1755 Broadway, Oakland, Cal.

WILLIAM K. BARTGES, ARCHITECT, has removed his office to Mercantile Bank Building, Berkeley, Cal.

EDMUND T. STEWART, ARCHITECT, has removed his office to 226 La Fayette Arcade, Tampa, Fla.

ASHLEY & EVERS, ARCHITECTS, have removed their offices to 525 Market St., San Francisco, Cal.

ALBERT E. TAYLOR, ARCHITECT, has removed his offices to Vernon Road, Drexel Hill, Pa.

VALLIE P. SCALLAN has opened an office for the general practice of architecture at 402-4 City National Bank Bldg., Corpus Christi, Texas.

LORENZO HAMILTON, ARCHITECT, has removed his office to 22 Church St., Meriden, Conn.

C. W. DICKEY AND HART WOOD have formed a partnership under the firm name of Dickey & Wood, with offices at 405 Damon Building, Honolulu, T. H.

S. M. RICHARDS, ARCHITECT, has removed his address to 209 Market St., Freeport, Pa.

HAVILAND W. ALLEN, ARCHITECT, has removed his offices to 402 Dwight Building, Jackson, Mich.

JOHN RICHARD ROWE, has removed his studio to Room 1204, 232 Madison Avenue, New York.

## THE NEW YORK ARCHITECTURAL CLUB, INC.

WE ARE BEGINNING to believe in miracles!

In last month's article for PENCIL POINTS we described the Club's furniture needs and suggested that someone act the part of the Good Samaritan and subscribe for a part of the furniture required. The idea has borne fruit; as several people have offered to pay for various articles, totaling several hundreds of dollars.

This proves that it was a brilliant idea, and anytime we get a brilliant idea it is a miracle, or we wouldn't know a miracle if we met one face to face. (For the benefit of the customers we might state that we are using an editorial "we". Native modesty prevents us from using the more egotistical "I". Besides a nice fat "we" is more generous, and also helps to pass the buck for responsibility upon occasion).

Since the last article appeared, considerable progress has been made toward obtaining the necessary furniture, and the next few weeks should see everything in place. However, do not let this discourage any other prospective Good Samaritans who may be benevolently inclined. We are going to try to induce the Board of Directors to provide metallic labels of a suitable and appropriate design to be fastened to the different pieces of furniture donated in appreciation of the donor.

At this time, we would like to remind all members regarding the small matter of dues. A general statement was sent out recently to all club members, describing the work done to date, as well as some of the financial responsibilities assumed by the club. These will have to be met regularly, and as the membership dues are practically the main source of revenue, we would like every member that has not as yet sent in his dues to date, to kindly cooperate with us by sending them in at once. This should be done before October 15th, as after that date all who have not paid will be scratched from the roll.

*The Atelier*

On Saturday, September 18th, about 35 members of the Atelier took the esquisse for the various classes at the Beaux-Arts Institute, and it certainly looks as if the new season is going to open with a big crash, with everyone anxious to get busy. The prospects look very bright indeed



## PENCIL POINTS

for some more publications and mentions, and perhaps a prize or two.

### *The Life Class.*

The first session in drawing from life was held on Tuesday, September 14th, with about 15 students, and the second on Friday, the 17th, with 20 present. This class will be held regularly every Tuesday and Friday from 8 to 10 P. M. The room will comfortably accommodate about 25 or 30 easels.

### *Baseball.*

Our baseball protégés, under the modest title of "Architectural All-Star Baseball Team", had their annual set-to with the Sing-Sing Prison team. This is a very strong team, and has beaten some of the best amateur teams in the East. Our boys, with Long pitching and Keppler catching, held down the heavy sluggers to a score of 6-2 up to the sixth inning. In the second half of the sixth frame, fumbles in the infield started the tide the other way, and won the game for the prison team with a score of 6-8. Beside the battery, special credit is also due to Herrick at first base, and Anderson at short for some fine team work, as well as to Wahle in left field, Forester in center, and Quigley in right field.

Our old friend Patrick M. Lynch did the honors as Umpire, but it wasn't his fault that we lost. He is not to be confused with the well-known Judge Lynch, or the Patron Saint either. He happens to be the manager of the well-known and popular Central Blue Print Company of New York City. (How is that Paddy?)

Mr. Morris L. J. Scheffer, the manager of the team, was the most mournful spectacle imaginable after the game, but nobody can say that he didn't try to win, and we have all

the confidence in the world, that Pop Scheffer will beat that Sing-Sing team yet.

### *Bowling.*

At this writing, the Architectural Bowling League is only a few days from the opening of the 1926-27 bowling season, and the usual preparatory activity is taking place.

An innovation will be tried out this season, in that three distinct tournaments will be bowled simultaneously. Our good friend Charlie Jaeger, of the Warren & Wetmore office, worked out a very pretty schedule, that seems to have the possibilities of working like a charm. We will have 16 offices in the line-up this season, and each office will bowl four games every second week, as there are only 8 alleys available. The first three games of the evening will be bowled as 5-man teams, and the last game will be split into a 3-man and a 2-man team tournament, thereby totaling three rounds for the 5-man teams, and one round each for the 3-man and 2-man teams. Charlie worked out five complete schedules, and he is to be congratulated with the fine success of the fifth one.

Several of last year's teams had to be dropped, and a new one was taken in. The new team is from the office of Mr. William Whitehill, and we take pleasure in welcoming it into the league.

This year's line-up is as follows:

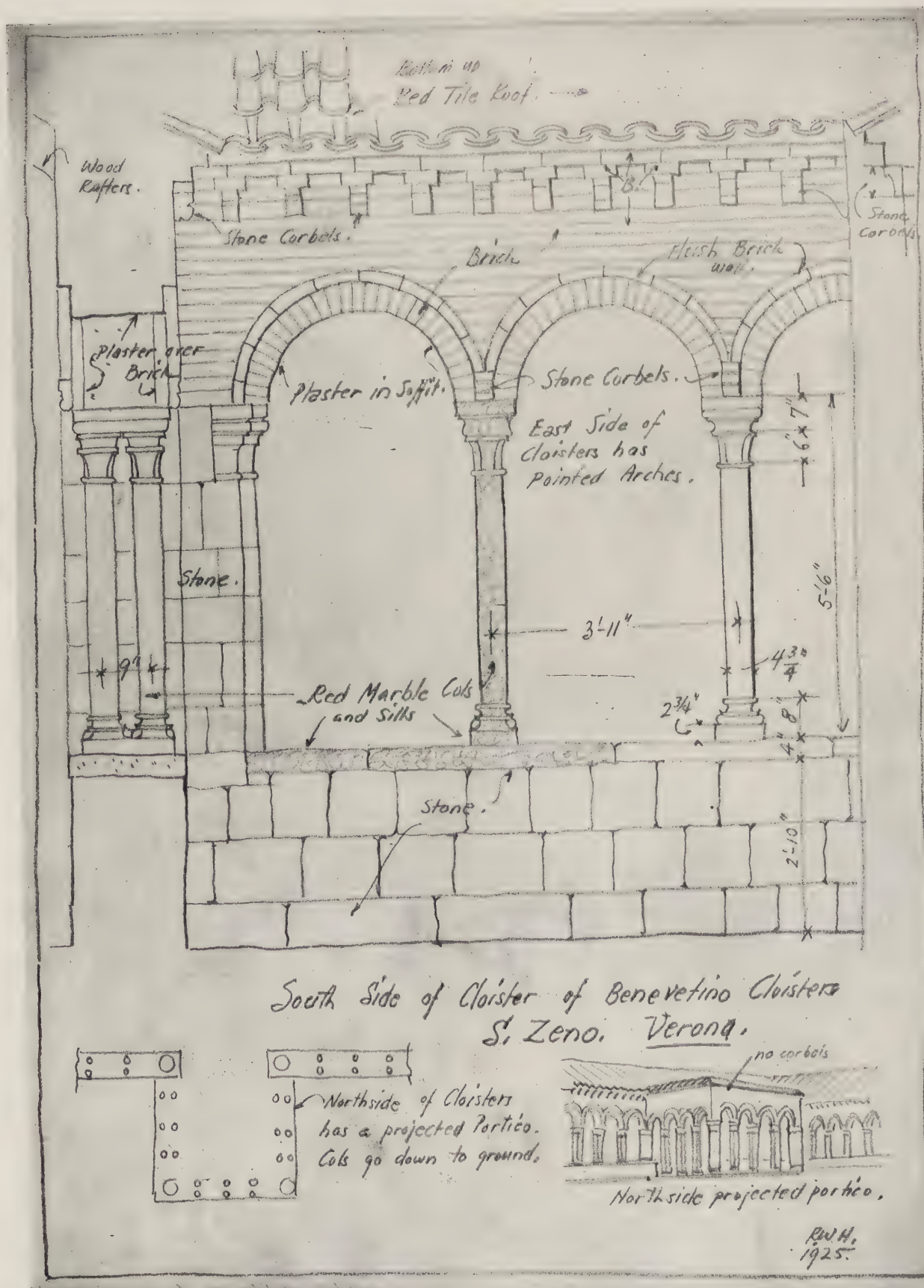
- |                            |                                 |
|----------------------------|---------------------------------|
| 1. Schwartz & Gross        | 9. William Whitehill            |
| 2. Thos. W. Lamb           | 10. McKenzie, Voorhees & Gmelin |
| 3. Peabody, Wilson & Brown | 11. Warren & Wetmore            |
| 4. Holmes & Winslow        | 12. Cass Gilbert                |
| 5. J. E. R. Carpenter      | 13. Alfred C. Bossom            |
| 6. Jas. Gamble Rogers      | 14. McKim, Mead & White         |
| 7. William Gompert         | 15. Starrett & Van Vleck        |
| 8. Guilbert & Betelle      | 16. Andrew J. Thomas            |
- Henry Sasch, Secretary, care Cass Gilbert, 244 Madison Avenue, New York City.



RENDERING BY LOUIS C. ROSENBERG

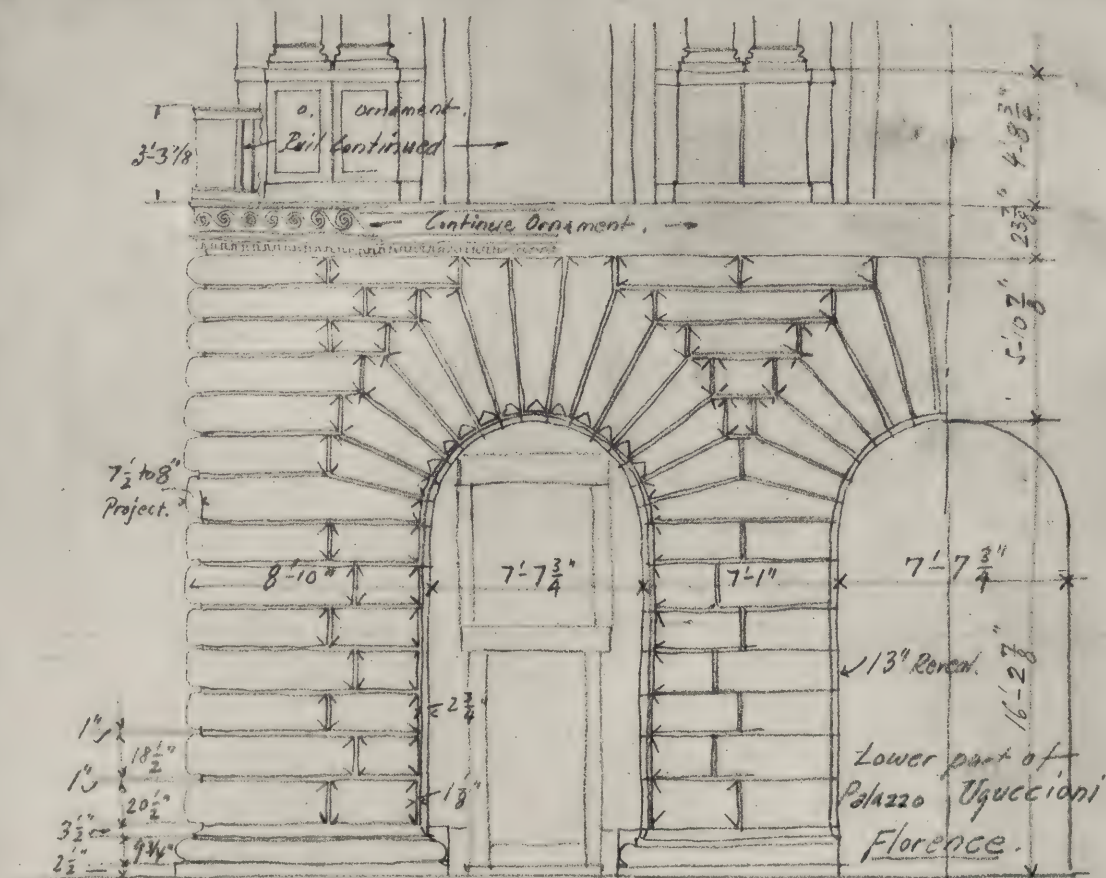
*Proposed Apartment at Miami Beach for the Mahlstedt-Steen Securities Corp., Pliny Rogers, Architect*



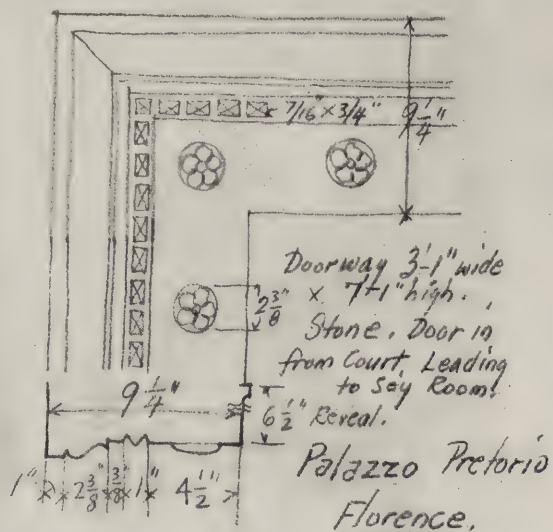


MEASURED DETAILS FROM THE NOTEBOOK OF ROBERT W. HUBEL, DETROIT, MICH.

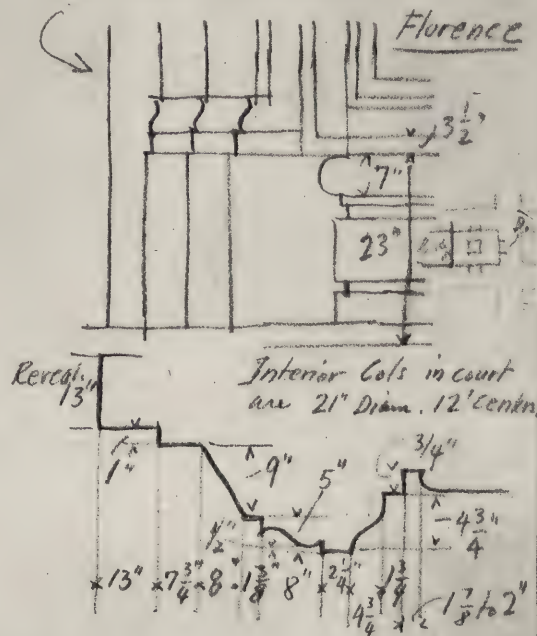




Main Center Door Palazzo Strozzi, Florence



R.W.H.  
1925.





# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

## R. W. R. TAKES A MUCH-NEEDED VACATION

FOR A LONG TIME R. W. R. has been threatening to go away and leave us to do his work for him, and we've always dared him to do it. We knew we could manage his department *much better* than he did it himself. But somehow, now that our long awaited opportunity has come and we are actually put to it, we are not at all sure of ourselves. We beg the readers of this department to be lenient with us!

The prizes for the contests this month go to:

- Class One—Homer Pfeiffer
- Class Two .....
- Class Three—O. W. Trageser
- Class Four—Charles M. Stotz

I'm afraid we were too optimistic when we wrote *Class Two* in our copy. We are forced to leave the space next to this a blank, for not one single poet has been in need of our prize of ten dollars and there is no verse in this month's collection of material. Business is evidently picking up for the poets but—a word of warning—it won't last long and you writers had best prepare for some more of the rainy weather we had last month and send in your contributions for the November issue.

THE MAP of Mr. Stotz's European itinerary, reproduced on page 634, was the natural outcome of table cloth sketches and notes on the backs of envelopes, made in the process of describing places and routes to his friends interested in things European or architectural, and particularly for the benefit of those contemplating a similar trip. For the latter, a photostatic copy of the map with notes, made the most concise and usable answer to requests for advice on the choice of an architectural itinerary in Europe.

## GOSSIP FROM THE CAFE DES DEUX MAGOTS

OUR VERY SPECIAL CORRESPONDENT for this department, Monsieur J. R. Rowe, has just returned from foreign shores—more specifically Paris and the Deux Magots! He reports that Clarence W. Hunt, of Le Brun fame in 1925, was seen at the Café and is now in America looking for a job. William Ferrari, his successor, is in Paris. Rudolph de Ghetto, after assisting Monsieur Labatut to win the first second *Grand Prix*, left for Italy to visit his uncle. Mr. F. C. Hirons was also in Paris, for a short stay on business and pleasure, a part of the business being to persuade Monsieur Damato to accept a professorship at Princeton. Monsieur Damato has just arrived in this country. Our correspondent is shortly to attend a dinner to be given in this gentleman's honor and has promised to send in a full account for the November issue. Monsieur Grapin, professor of architecture at Carnegie Tech, was also seen at above mentioned Café where our young man enjoyed a cup of coffee with him.

Mr. George Sturtevant, of Warren & Wetmore's office, after five months' earnest effort to get started, journeyed to Meaux one week-end and there did some very interesting work. We are trying to secure some of Mr. Sturtevant's sketches for publication.

Mr. Ernest A. Grunsfeld, Jr., the *practicing* architect of Chicago, and Mrs. Grunsfeld, passed through Paris occasionally while doing Europe in two weeks. Mr. Wallace K. Harrison, famous professor of architecture at Columbia, and Mrs. Harrison, were also in Paris on their honeymoon.

Mrs. Samuel Chamberlain was seen at the Bon Marché shopping while husband Sam, in Caudebec, was minding the baby with one hand, at the same time manipulating an etching needle with the other. Mr. Chamberlain has made ten



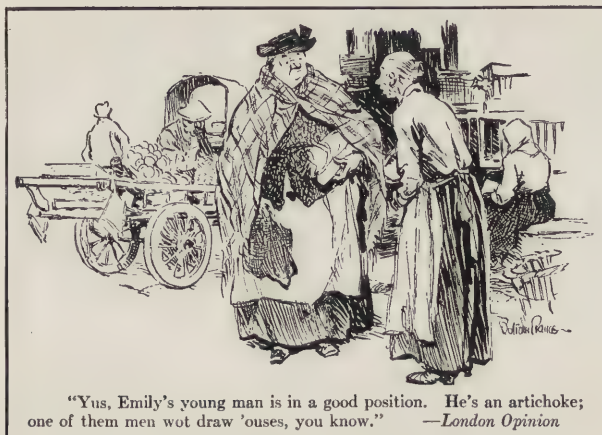
COMO



CAIRO

WATER COLOR SKETCHES BY HOMER F. PFEIFFER  
(PRIZE—Class One—September Competition)





"Yus, Emily's young man is in a good position. He's an artichoke; one of them men wot draw 'ouses, you know." —London Opinion

CONTRIBUTED BY MARY GREENE

etchings since June; evidently Mrs. Chamberlain doesn't shop often!

Harry K. Bieg, winner of the Paris Prize in 1924, has been studying at the Ecole and was planning to leave for Germany.

Lee Rombotis, Paris Prize winner in 1923, is deeply engrossed in books on Chinese and Japanese architecture.

Around the corner from the Café, Howard Leigh has a six room Louis Seize apartment, in the midst of which he is very busy making lithographs of Sicily.

Mr. Harvey W. Corbett and family were seen one afternoon at tea time sitting in the Café, enjoying the view of Saint Germain des Pres.

From odd remarks dropped by our representative we have gathered the opinion that the Café des Deux Magots rivals Shephard's Hotel in Cairo, the Savoy Bar in London, Albrecht's in Rome, and Florian's in Venice, as a meeting place for peregrinating architects.

FOR SALE: Photographs (8" x 10") of French and Italian subjects, the collection of a deceased architect; may be seen at the office of PENCIL POINTS, 19 East 24th St., New York.

WANTED: Folio or set of "Expertservice" Sheets, formerly published by the Architectural Service Corp., Phila., Pa. Call Mr. Fleming, Pennsylvania 1369, New York City.

## COPIES OF PENCIL POINTS

WANTED AND FOR SALE

Alvin L. Earle, 67 Inman St., Cambridge, Mass., wants January, February, March and April 1926.

W. Walden Fountain, 216 Elmwood Ave., Irvington, N. J., wants June, July, August and November 1920; January and February 1921. Also the following issues of the White Pine Series: Vol. 1. No. 3; Vol. 2. No. 4; Vol. 3. No. 2; Vol. 4. Numbers 2, 3, 4, 5, 6; Vol. 5. Numbers 1, 4, 5, 6.

Adrien Dufresne, Beauport, P. Q., Canada, wants February 1922 and June 1924.

J. L. Brookhauser, 1345 H. St., Lincoln, Nev., wants 1920 complete; 1921 complete; 1922, all issues except August; January, February, April, May, July and December, 1923.

A. L. Collins, 536 South Hope St., Los Angeles, Cal., wants copies from January to September 1925, inclusive.

Library Committee of the Palette & Chisel Club, 1012 No. Dearborn St., Chicago, Ill., wants copies for July and August 1924, and January and February 1925.

M. F. McGrath, Vice-President of the Indiana Limestone Company, Bedford, Indiana, wants a copy of the January 1922 issue.

PENCIL POINTS, 19 East 24th St., New York, has the following back issues for sale at 25c. each: June and July, 1921; August, 1922; October, 1923; April 1924; August, September, October, November and December, 1925; February and June 1926.

H. S. Deiser, 85 Water Street, Patterson, N. J., has all copies of Pencil Points, from the first issue in June 1920 up to and including May 1926, which he will sell for \$50.00. Will not sell partially.

## BOGUS AGENT SENTENCED

IT WAS STATED at the London Sessions recently that Edgar Lane Matthews, 38, a traveller, who was brought up to answer five charges of obtaining money by false pretences, had carried out in the past few years hundreds of frauds in which he had robbed people all over the country.

Since 1922, it was said, he had been calling on various people claiming that he represented an American trade paper, which was anxious to increase its circulation. For this reason surplus copies had been printed, which, the prisoner said, he could supply to traders in England at reduced cost for a twelve months' order, or, in some cases, on payment of postage only. He received about £1 in each case.

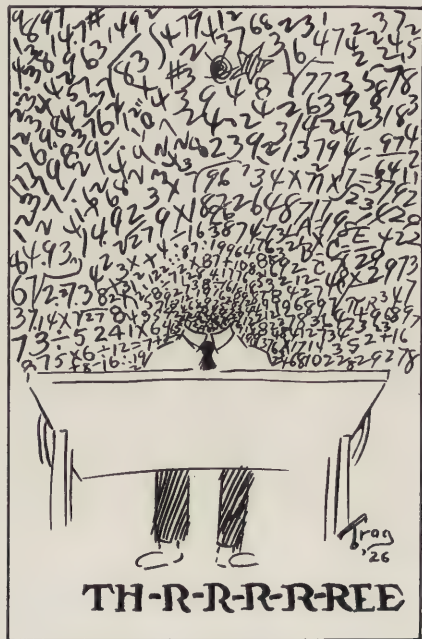
Matthews pleaded guilty to 247 other similar cases, which were taken into consideration by Mr. H. W. W. Wilberforce, Deputy Chairman, who sentenced him to eighteen months' hard labor.



WUN -



TIEU -



TH-R-R-R-REE

"JUST A FIGUREHEAD"—CARTOON BY O. W. TRAGESER, KALAMAZOO, MICH.

(PRIZE—Class Three—September Competition)



PENCIL POINTS



ILLUSTRATED MAP DRAWN BY CHARLES M. STOTZ, PITTSBURGH, PA.  
(PRIZE—Class Four—September Competition)



# AN INTRODUCTION TO THE LETTERS OF LISTERENUS TO ANTIACID

THE VALUABLE CORRESPONDENCE OF A ROMAN DRAFTSMAN TO HIS ATHENIAN FRIEND.

Found by Professor H. E. Knozall, M.Arch., Sc.D., Ph.D.

Foreword by President George A. Peach of Savannah University

Gentlemen and Architects: it is indeed a great pleasure to be able to introduce to you Professor H. E. Knozall, M.Arch.; Sc.D., Ph.D., and Dean of Architecture in the Jasper Scientific School of Savannah University.

Architects the world over have been waiting impatiently, no doubt, for the publication of these manuscripts which in my humble opinion are the greatest find from an historical and architectural standpoint in several decades, *pro bono publico*.

It will be remembered that only last February the channels of communication the world over flashed the startling news that our Professor Knozall, of whom Savannah University is justly proud, while touring Greece by the merest of accidents came across these valuable chefs-d'oeuvres, but it is due entirely to his rare ability to readily read extinct Latin script that they were recognized as such by him and preserved for posterity.

Professor Knozall hopes that the publication of these epistles will help somewhat to defray the expenses of his late trip and it is due to this hope of financial reimbursement that you gentlemen of the architectural profession are now permitted a glimpse into the everyday, intimate life of an architect's office in Italy in the time of the Great Caesars. Of course, had Professor Knozall desired to do so he could have kept these missives to gloat over privily as one with *auri sacra fames* would do, but being a magnanimous soul, he at once sought out PENCIL POINTS — your drafting room journal — and asked them to publish these, with his adroit and translucent annotations, as rapidly as he is able to transcribe them. When this is completed he will put the originals permanently on public display at the Library Building of the University of Savannah. In closing, let me remind you that we and you are under inestimable obligations to Professor Knozall for his magnum opus.

IN EDITING THESE PAPERS I want it distinctly understood from the start, on my *parole d'honneur*, that I am doing so solely for the uplift and edification of the profession in particular and the *bono publico* in general. I will not stoop to those heinous literary crimes of padding and polishing in order to make them appear more presentable and complete, but I shall give them as they exist, *verbatim et literatim ab ovo usque ad mala*, with only such notes as, *me judice*, I deem absolutely indispensable for a clear and profound insight into the matter, lest some, by quick reading, miss the essentials or *sumum bonum*.

The exact year in which these letters were written is not known, merely the days of the months being recorded by their author, either because of his youth or perhaps because of his insouciance, a fault so common along the callow juniors of all ages. But as Caesar is mentioned many, many times we are just as likely correct as not in supposing them written in the glorious days of the Great Gaius Julius, that man's man and warrior supreme who, in the midst of subduing Gaul, found time in which to divide it up into easily remembered parcels for us, besides also adjusting our fickle calendar. Oh! What an era to live in and what an Emperor to serve!

The fact, I think, that startles one most after a perusal of these epistles is the humanness and naturalness of life then as now. We find it is not a case of *tempora mutantur, et nos mutamur in illis*, but rawther that their lives and customs practically paralleled ours of to-day. The manner and methods of "getting out" work in an architect's office then, while somewhat different, were just as difficult and laborious as now and this fact alone should stimulate and give encouragement to our Twentieth Century architects and their *semper paratus* assistants. The profession as a whole should take for its motto and keep ever before it this ancient phrase of antiquity: "*Bonus labor omnia vincit, et sic itur ad astra*."

The papers are in reality pieces of long epistles written *currente calamo* and sometimes very illegibly and illiterately by a youthful Roman draftsman who signs himself simply Listerenus. They are inscribed on very expensive, high grade Egyptian papyrus (otherwise they would not have survived in *saecula saeculorum*) which in all probability

was stolen by Listerenus when his noble employers, Ego, Tisticle & Pompus, were out of the office. This illustrious firm, *en passant*, though we have no records from any other source of them or of their ennobling efforts and accomplishments were, according to this scribe, who writes as *magnus Apollo*, at that period the leading firm in Rome, standing high in the good graces of the Emperor and being *bono fide*

members of the Royal Society of Honorable Italian Architects, which was the great grandfather, as it were, of our own A.I.A.

We of to-day are prone to think of the so-called "sky scraper", as we know it, as a *ben trovato* of pure American genius in design and construction, but according to Listerenus (this very interesting letter will be published in the near future) their offices, unless I have made a grave error in my calculations, were on the sixteenth or seventeenth floor of at least a nineteen story building. This ancient Romanus Colossus, the Ionic Bank Building, probably the first of its kind, graced the south-east corner of Tiber Street and Appian Avenue. No vestige of it remains, however.

Listerenus seems, on the whole, to be a rawther likable chap of honest intent and with *cacoethes scribendi cum curiosa felicitas*. At times though, one cannot help but think him biased in his rash and uncomplimentary references to his esteemed and well thought of employers, and at such times we must read *cum grano salis*.

The friend to whom all of his correspondence is addressed, one Phillippe Antiacid, appears to be also a fellow struggler after fame, with a "Venus", and in the employ of an Athenian Architect by the name of Kolinus. It is indeed a great pity that the letters of Antiacid to Listerenus have not as yet been found, for to have his account of the work proposed and in progress in Athens *hoc tempore* would be wonderfully *à propos* and illuminating. I have not as yet given up hope of finding these letters of Antiacid. If I am financially able to do so I shall return to Rome next summer and camp *in loco citato* in the hope that even greater success will this time crown my earnest and untiring efforts. I know you men of the profession, *uno animo*, wish me luck in this unselfish venture and will await with interest the inevitable results.



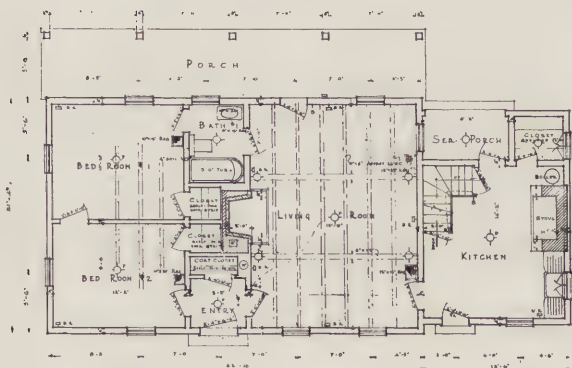
UNTOUCHED PHOTOGRAPH OF PROFESSOR H. E. KNOZALL

Taken in Athens, 1926, by Understone & Understone

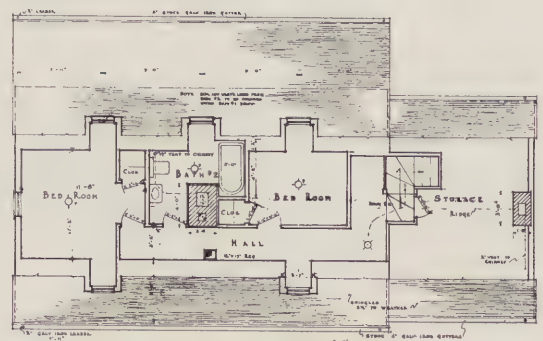




RENDERING BY W. A. TREANOR



FIRST FLOOR PLAN



SECOND FLOOR PLAN

COTTAGE FOR RUDOLPH ISELIN, ESQ., RONKONKOMA, L. I.

*Treanor & Fatio, Architects*



# THE SPECIFICATION DESK

A Department for the Specification Writer

## MAKING THE SPECIFICATIONS USEFUL.

By John O. Merrill

A SPECIFICATION IS PRIMARILY an instrument of service. An instrument according to Webster is a "thing used in performing an action." A specification is written to be used in the action of constructing a building, and it is a success or a failure in so far as it is usable for this purpose. An analysis of how and by whom it is used is valuable in devising ways of increasing its usefulness.

The finished specification first falls into the hands of the contractor's estimator. Now everyone knows that an estimator is the busiest person in the world. He is always busy and he is always working with an approaching zero hour at which time his job must be done or all of his effort is wasted. Why not try to give him the facts that he wants in such a manner that he will not be forced to read through page after page of literary effort, picking up here and there a small crumb of information? The estimator is primarily interested in quantity and quality of materials. In general the drawings should give him the former and the specifications the latter. One section of the specifications of each branch of the work should be devoted to materials. Give the information required as briefly as possible, but make it complete and definite. Arrange it in such a way that it stands out on the page. Make use of schedules of materials where practicable. This avoids long paragraphs with numerous items divided by punctuation marks, which the stenographer will eliminate anyway. All of this to the end that the estimator may bless you and not curse you.

The process of estimating is further complicated by the universal practice of letting sub-contracts. This makes it essential that the specification be carefully divided according to trades. The general contractor will ordinarily separate it and send the proper divisions to the various sub-bidders. It is up to the architect to make sure that each branch specification contains all of the work to be done by that particular trade and nothing more. If he puts an item in the wrong branch it is very likely to be omitted altogether in the general bid, resulting in grief for all concerned.

After the construction work is actually started the specification is used in many ways,—in ordering material, in the production of various shop-fabricated materials, and on the job. It is often very illuminating for the specification writer to visit a job and ask the foreman for the specifications. The latter will scratch his head and, after

giving the matter some thought, will unearth your document from the bottom of a nail keg. Specifications, as far as their use on the job is concerned, may be divided into two classes,—those that are kept alive and in constant use on the foreman's desk and those that are decently buried in the nail kegs. It is natural that the drawings

are used to a larger degree than the specifications in the actual work on the job. In general the materials have been ordered from the contractor's office and need only be checked to make sure that they are right. The disposition and arrangement of the materials are taken care of by the drawings. There is usually, however, a portion of the specification covering workmanship and installation of materials, which is necessary and useful if properly presented. In this connection the specification writer should make it a general rule to specify *results to be obtained* rather than methods to be used. This rule, like all others, has its exceptions, but it seems reasonable to assume that the contractor, if he is competent, is in many cases best qualified to decide just how to obtain the desired result. If he is not competent, the best specification ever written backed up by the closest supervision will not make him do good work. This practical human element also applies to the individual workman. It is a waste of effort to write a lengthy treatise telling Bill Jones just how to lay bricks when Bill has been laying them in the same way for twenty years. Tell him that you want a first-class wall and he will do his best to make it so.

The legal aspects of the specification must be given careful consideration. It is an integral part of a written contract and to be usable as a legal document must contain complete and definite provisions covering all contingencies that may arise during the execution of the contract. Many architects use the printed general conditions but these must be carefully studied and often altered and expanded to meet particular conditions.

The proper relation between specifications and working drawings must be well understood. These two instruments of service are complementary and they must interlock but not overlap. Certain elements of the building can best be shown on the drawings while other elements can best be covered by written description. The result to be achieved is a coordinated and accurate instrument for transforming the architect's idea into a reality.



JOHN O. MERRILL

*Mr. Merrill is a member of the firm of Granger & Bollenbacher, of Chicago. He was graduated from the Massachusetts Institute of Technology in Architectural Engineering in 1921, is a member of the A. I. A. and the Architects' Club of Chicago.*







# SPECIFICATIONS: HOW WE WRITE THEM

*By Merton G. Kingsley, of the Office of Abram Garfield*

THERE IS SO MUCH THAT might be said about specifications, and so many different angles from which the subject may be discussed that it is necessary to select one particular phase of the work for an article such as this. I will describe our method of producing specifications and will go into considerable detail as to the way in which we do this. This will probably be more interesting to the beginners than to the seasoned veterans of the craft.

We blue print all of our specifications, and have done so with much success for the past six years. This method has several advantages over other methods of duplication, depending, of course, on the number of copies required. The advantages are greatest for work which requires at least eight and not over thirty copies. Most of our jobs fall between these extremes. For the few jobs outside of these extremes we use the same method for the sake of uniformity. It might be well to point out some of the advantages of this method.

Every copy is an exact duplicate of the original. The same is true of mimeographing and other methods of duplicating, but these methods are not practicable unless at least thirty copies are required. For work which requires less than 8 copies the typewritten carbon copy method is very practicable, but not over eight readable copies can be made on reasonably tough paper and if more copies are required, each succeeding batch has to be re-checked with the original and it is almost impossible to make an exact reproduction of the original set. Errors have to be corrected on every copy with a greatly increased hazard of more errors.

With the blueprint method corrections are easily made and easily checked. There is only one original copy. When this has received its final corrections and final checking it is ready to print, and no more checking is necessary.

If there are minor errors or changes to be made and time does not permit re-typing, the corrections may be made directly by the checker with a pencil; words or letters not wanted may be blacked over; additional words may be printed in. This is not general practice and is used on minor corrections or in emergencies only.

This method readily accommodates small sketches. Sometimes a small sketch alongside the description is a very graphic way of explaining some points. The information is all in one place. One has to use judgment as to how far this practice should be carried. In the rough draft I note how much space to allow for each sketch, then on the original I draw in the sketch, usually with an HB pencil.

I use a great many schedules, as many as possible, two of these are shown on the opposite page. The horizontal lines are made on the typewriter, the vertical lines are drawn with a pencil.

The originals are typed on onion skin paper, the kind we use is very thin and very tough. This is inserted in the typewriter in the usual manner, but with a carbon paper behind it with the carbon side against the back of the white paper. This backs up each letter with a deposit of carbon and the prints from these originals are very strong. We have the prints made on extra thin blue print paper to decrease the bulk of the completed document. We use 8½ x 11 paper and bind it at the left side. This conforms to the A.I.A. General Conditions and Contract Documents. It also makes a document easier to handle than the longer legal size paper bound at the top. These blue printed specifications probably stand more abuse on the job than any other kind.

The specifications are divided into "parts". Part I, General Conditions and General Work; Part II, Excavating; Backfilling; Grading; Part III, Masonry Work, and so on. Each "part" is divided into Sections, which commence about as follows: Section 1. Contents of Part II; Section 2, Scope of Part II; Section 3, General Description of the Work, and so on. Each section is divided into paragraphs which are identified by small letters (a), (b), (c), etc. Each page bears an identification number such as 6-642-4 meaning Part VI, Job No. 642, page 4. Thus it is possible to refer easily and accurately to any particular item in the specifications.

The specifications are compiled in loose leaf books. Each book is equipped with a set of rather stiff leaves which separate the several "parts" of the specification. These separators have index tabs and are numbered from 0 to 20. The tabs are numbered on both sides for convenience in rapid reference forwards or backwards when the book is lying open. In this book the information is assembled and edited. Some of this matter consists of pages or even whole "parts" from former specifications or from our "master specifications". Entirely new matter is written by hand on thin yellow paper. Sometimes on these sheets are pasted paragraphs clipped from former specifications. Then again the written matter will be only an outline, with references to a few paragraphs from one specification and one or two from another, then an entirely new paragraph and so on, as best suits the job. The compiling of a specification for residential work is rather simple. The "master specification" is blue printed and put in the book. With a yellow pencil I start in to check it through, placing a cross beside paragraphs not wanted, a check mark beside paragraphs wanted, and the change of words here and there. Any new items are written in pencil on the back of the blue print pages.

If time permits the entire specification is compiled before being turned over to the typist. Usually time does not permit this and the several "parts" one at a time go to the typist as soon as each is completed. Then the typed specification is checked and assembled in the loose leaf book, and the original manuscript is filed for reference until the completed specifications have been issued. The specification is now ready for its final changes and checking. As the drawings near completion the addition or elimination of materials means similar changes in the specifications. Sometimes only a page here and there has to be re-typed. Occasionally a specification has to be entirely re-typed. One page out of three is about the usual run. It is surprising how much of the material is all right at the first typing.

In order to systematize the collecting of the necessary information I make a schedule of all rooms, then in columns opposite the same I list the following items: floor material, base, other trim, wainscot, walls, ceilings, finish on trim, finish on walls. When several men are working on one job it is necessary to have one source of definite information.

On this schedule the information is assembled for the use of any one who requires it. Of course the schedule is subject to change from time to time as unforeseen conditions arise as the job develops. The draftsman who letters on all the room names and notes of finishes makes good use of the finally accepted schedule. This assists in the correlation between drawings and specifications. The specifications describe each one of the several materials and finishes, the drawings designate in which rooms they are to be used.

The blank schedules reproduced were designed for residential work. They give a very graphic picture of the whole building in a very condensed form. For other buildings I usually rule off a schedule to fit the building, and for a very simple building the schedule is not necessary. These schedules expedite the work a great deal. Specifications cannot be written until decisions have been made. The schedule shows at a glance what has been decided upon and what has not. The items which are open are carefully followed up so as to expedite the decision.

Other information and notes which do not need to go on the schedule are jotted down on slips of paper about 4" square and locked into the loose leaf book at the point where they apply. Valuable notes and information should not be left laying around on scraps of paper.

I make it a point to follow up all of the jobs as they progress through the office from the preliminary sketches to the working drawings. In this way I absorb a lot of information, as well as help to decide upon some of the materials and details. When a job is going through I try to keep right along with the drafting room and the specifications are usually finished at the same time the drawings are finished. The instructions to bidders, and bid blanks if necessary, may follow a day later.



# PENCIL POINTS



DETAILS OF CONSTRUCTION—BUSINESS BUILDING, COLUMBIA UNIVERSITY  
McKIM, MEAD & WHITE, ARCHITECTS



# PUBLICATIONS

## OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Homey Homes.**—Handsome booklet illustrating and describing ROCBOND, the exterior stucco. Profusely illustrated, showing typical stonework finishes and eight illustrations in color of the surface effects secured with ROCBOND European Colortone Finish. Also contains instruction as to how ROCBOND Stucco should be applied. 24 pp. 8½ x 12. The Rocbond Co., Van Wert, Ohio.

*Published by the same firm, ROCBOND FLOORING for Hospitals, factories, hotels, stores, schools, etc. Illustrated in color. Also ROCBOND Exterior Stucco in Florida and ROCBOND Exterior Stucco Standard Specifications.*

**Bayley-Springfield Steel Windows.**—Catalog containing complete information on Universal Types of B-S Steel Windows. Profusely illustrated. Contains standard sections, cross sections, tables, vent and frame full size sections, standard units, installation and mullion details, curved heads, specifications. 84 pp. 8½ x 11. A. I. A. File No. 16e. The William Bayley Co., Springfield, Ohio.

**Herrick, The Aristocrat of Refrigerators.**—Booklet illustrating and describing this type of refrigerator for many different types of buildings. Tables of dimensions. 71 pp. 6 x 9. Herrick Refrigerator Co., Waterloo, Iowa.

**Ray Rotary Fuel Oil Burners.**—Catalog H illustrates and describes this type of oil burner for high pressure installations, stationary and Marine boilers. Tables, sectional drawings, etc. 16 pp. 8 x 11. W. S. Ray Mfg. Co., Inc., San Francisco, Calif.

*Published by the same firm, Catalog 'L' showing line of Ray Rotary Fuel Oil Burners for low pressure boilers, furnaces and special industrial uses.*

**Hand-Power Elevators.**—Pamphlet illustrating and describing Kiesling Ball Bearing Freight and Passenger Elevators. Tables. 9 x 10½. John W. Kiesling & Sons, Inc., 1797 Atlantic Ave., Brooklyn, N. Y.

*Published by the same firm, D & E Dumbwaiters, and Models K-L Sidewalk Elevators.*

**Studies in Lime.**—Handsome Brochure, looseleaf form, illustrating and describing "Tiger Finish". Many beautiful color plates, lathing details, specifications. A reference and guide for architects and builders. A. I. A. File No. 21-A-1. 8½ x 11. 50 pp. Kelley Island Lime & Transport Co., Leader Bldg., Cleveland, Ohio.

**The Incinerite.**—Pamphlet illustrating and describing built-in Incinerites. Incinerites for every purpose—everywhere. E. C. Stearns & Co., Syracuse, N. Y.

**The Ohio No. 25 Gas Water Heater.**—Pamphlet illustrating and describing this type of water heater. Specifications. The Ohio Heater Co., Columbus, Ohio.

*Published by the same firm, The Ohio Kerosene Water Heater.*

**Shapes of Clay.**—Publication for architects. The August issue shows some beautiful and interesting studies in which Cordova roof tile and medium Berkeley pan tile has played an important part. Interesting article on the manufacture of roof and floor tile. 8½ x 11. 15 pp. Gladding, McBean & Co., 660 Market St., San Francisco, Calif.

**Peerless Built-In Furniture.**—Pamphlet illustrating and describing the Peerless line of built-in furniture. Built-In Fixture Co., 2608 San Pablo Ave., Berkeley, Calif.

**Kliegl Theatrical Decorative and Spectacular Lighting.**—Catalog M illustrates and describes complete line of lighting specialties and lighting effects for stages, etc. Catalog includes stage equipment, exit signals, aisle and step lights, dimmers, switchboards and other special lighting apparatus. 128 pp. 7¼ x 10½. Kliegl Bros. 321 West 50th St., New York.

**Gold Seal Treadlite Tile—A Bonded Floor.**—Booklet illustrating and describing this type of floor. Contains seven plates showing recent important installations in separate pocket. 12 pp. 6 x 9. Bonded Floors Co., 1421 Chestnut St., Philadelphia, Pa.

**Gold Seal Marble-ized Tile—A Bonded Floor.**—Booklet illustrating and describing this type of floor. Contains small scale reproductions of Gold Seal Marble-ized Tile in colors, also ten plates of recent important installations and three color plates in separate pocket. 12 pp. 6 x 9. Bonded Floors Co., 1421 Chestnut St., Philadelphia, Pa.

**Yeoman Automatic Electric Junior Drainage Pump.**—Leaflet No. B331. A. I. A. Classification No. 29-c-1. Bulletin illustrating and describing this type of drainage pump. Yeomans Brothers Co., 1433 Dayton St., Chicago, Ill.

*Published by the same firm, Yeomans Type "HYO" Open Impeller Centrifugal Pumps, Bulletin No. S-120, A.I.A. Classification No. 29-d-5, and Yeomans Type "HVS" Horizontal Centrifugal Pumps for General Service.*

**Truscon Permanent Building Products.**—Revised catalog containing carefully compiled data and information. Profusely illustrated, tables, sections, types and sizes, construction features. Convenient handbook for architects and builders. 27 pp. 9 x 11. Truscon Steel Co., Youngstown, Ohio.

**Water Heater Manual.**—Contains complete condensed detailed information for the drafting room and specification writer on automatic hot water storage systems, indirect and steam water heaters, copper range boilers, galvanized range boilers, hot water storage tank for residences, apartments, schools, public buildings, offices, factories, etc. 9½ x 12. Riverside Boiler Works, Inc., Cambridge, Mass.

**Zapon Architectural Specifications.**—Besides the specifications this booklet contains complete information as to the value of ZAPON "OBS" Lacquers and Lacquer Enamels for architectural finishing purposes. File No. 25-B-14. 9½ x 11¼. 26 pp. The Zapon Co., 247 Park Ave., New York City.

**Coldak Electric Refrigeration.**—Pamphlet illustrating and describing this type of electric refrigerator. Specifications. 15 pp. 5¼ x 6½. Coldak Corp., 8 West 40th St., New York.

*Published by the same firm, Coldak System of Multiple Refrigeration for apartment buildings, factories, delicatessens, meat markets, stores, etc.*

**The Gospel of Fresh Air.**—10th Edition. Covers subject of ventilation and ventilators for all types of buildings. Specification information and much technical data. A. I. A. File No. 12-k-1. 8 x 11. The Swartwout Co., Cleveland, Ohio.

**Stucco, Interior Plastering—Graftito.**—Handsome Brochure, just off the press, containing many beautiful illustrations showing the application of Portland Cement Stucco. Six color plates. Cross Sections. Tables of quantities. Specifications. Notes on design and a wealth of important and helpful data is contained in this beautiful book. A. I. A. File No. 21-D-1. 8½ x 11. 36 pp. Atlas Portland Cement Co., 25 Broadway, New York.

*Published by the same firm, Atlas White Portland Cement for Mortar, A.I.A. File No. 3-L, "Atlas White Portland Cement for Terrazzo", A.I.A. File No. 22-E-1, "Atlas White Portland Cement for Swimming Pools", A.I.A. File No. 35-F-2, "Atlas White Portland Cement for Ornamental Cast Work", "Atlas White Portland Cement for Railroad, Highway and Municipal Uses" and "Atlas White Portland Cement for Ornamental Cast Work." All just off the press.*

**The Thorp Reference Book of Fireproof Doors.**—Contains the latest and best in Fire Proof Door Construction and its application to modern conditions. Profusely illustrated, contains elevations and detail drawings, specifications, list of recent installations, etc. 8½ x 11. 95 pp. Thorp Fire Proof Door Co., 1600 Central Ave., Minneapolis, Minn.

**Napoleon Gray.**—Handsome Brochure on the subject of Napoleon Gray Marble, setting forth its adaptability and qualities. Many interesting illustrations. Stiff Cover. 61 pp. 6x9. Tompkins-Kiel Marble Co., 505 Fifth Ave., New York.

**North Western Expanded Metal Products.**—Sample book containing samples of metal lath for various uses with tables of weights and sizes and full information regarding same. Also contains specifications and detail drawings, elevations, cross sections, all in a durable binder in handy looseleaf form. A. I. A. File No. 20-b-1. North Western Expanded Metal Co., 407 S. Dearborn St., Chicago, Ill.

**Display Stage Lighting.**—Pamphlet on this subject illustrating and describing lighting systems for display purposes. Display Stage Lighting Co., 334 West 44th St., New York City.

**Enfield Pastel Tiles.**—Booklet illustrating and describing this type of tile for use in residences, colleges, public buildings, country houses, bath rooms, etc. Profusely illustrated. Specifications, tables of stock sizes. A. I. A. File No. 23-a. 8 x 11. 40 pp. Enfield Pottery & Tile Works, Inc., Enfield, Pa.

*Published by the same firm, "Tile Panels".*

**Elevator Door Closer (Double Cushioning for Manual Operation) and Rotary Electric Interlock.**—Pamphlet just off the press illustrating and describing this type of door closer. Specifications, details, and much useful information for the architect. A. I. A. File No. 33-G-1. 12 pp. 8½ x 11. Elevator Supplies Co., 1515 Willow Ave., Hoboken, N. Y.

**Duplex.**—Handbook containing important and useful data on the use of Duplex joist hangers, wall hangers and post caps. Profusely illustrated, tables of dimensions, detail drawings, result of tests, etc. 8 x 11. 60 pp. The Duplex Hanger Co., Inc., Cleveland, Ohio.

**Ornamental Street Lighting.**—Design Book No. 100 (2nd Edition). Beautiful catalog profusely illustrated with many notable examples of street lights. Detail drawings, dimensions, 7 x 11. 127 pp. The King Co., Chicago, Ill.

**J. & L. Junior.**—Handbook on the Junior Beam, just off the press. Contains working tables and other data



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in the application of the new Junior Beam to all uses in construction, especially for floors and roofs in office buildings, hotels, hospitals, schools, apartments, farm buildings, garages and other large structures, as well as dwelling houses. Profusely illustrated. 55 pp.  $8\frac{1}{2}$  x 11. (Ask for Bulletin No. 2) Jones & Laughlin Steel Corp., Pittsburgh, Pa.

**Multi-Vane Turbine Ventilator.**—Pamphlet on the new and improved type of Multi-Vane Turbine Ventilator. Allen Air-Turbine Ventilator Co., 14th & Howard Sts., Detroit, Mich.

**Bulletin No. 89 and Data Sheet No. 45.**—Garage data. A. I. A. File No. 35-M-3 Ramp Buildings Corp., 21 East 40th St., New York.

**GF Fireproofing Handbook.**—8th Edition. As its name implies this work covers a wide range of fireproofing materials, their uses and application. Specifications, detail drawings, tables, types of construction, etc. 72 pp.  $8\frac{1}{2}$  x 11. General Fireproofing Building Products Co., Youngstown, Ohio. Dept. L.J.

**Variable Voltage Control System for Gearless Traction Elevators.**—Pamphlet illustrating and describing this type of Control System. Also data on motor generators for use with this Control System. General Electric Co., Schenectady, N. Y.

**Doorways.**—The September issue shows an attractive picture of a typical Virginian Doorway and contains much practical information as well. Richards-Wilcox Co., Aurora, Ill.

**Architectural Designs in Acme Brick.**—A series of photogravures showing architectural designs rendered in Acme brick. Illustrations show the various types of buildings erected in the southwest in recent years. 11 x  $8\frac{1}{2}$ . Sent free to architects applying on their office stationery. Acme Brick Co., Fort Worth, Texas.

**Flooring, Specifications and Grading Rules.**—Valuable document covering end matched long leaf hollow pine flooring. Including concise specifications and grading rules. Also illustrations of prominent buildings designed by well known architects in which this material has been successfully used. 16 pp. 4 x 9. Jackson Lumber Co., Lockhart, Ala.

**Kreolite News.**—Monthly Publication on the subject of wood blocks for floors for industrial plants, bridges and other floors built to withstand heavy duty.  $8\frac{1}{2}$  x 11. 12 pp. The Jennison-Wright Co., Toledo, Ohio.

**Portfolio of Specification Data.**—Covers floor treatments, dampproofing and waterproofing, interior and exterior painting and technical paints for all uses. Complete specifications of all products and data concerning their application. Standard filing size. L. Sonneborn Sons, Inc., 114 5th Ave., New York City.

**Weisteel Compartments.**—Catalog No. 11 describing compartments of all types. Blue prints showing construction and method of erection. Specifications, including hardware. A useful book to all in any way interested in industrial buildings, public buildings, schools, hospitals, etc. 32 pp.  $8\frac{1}{2}$  x 11. Henry Weis Mfg. Co., Atchison, Kansas.

**The Low Cost of Dignity and Beauty.**—A publication on the subject of windows with special reference to the advantages of plate glass. Tables of comparative costs and other important data, together with a large number of attractive illustrations are included. Specifications and complete information for the drafting room. 36 pp.  $8\frac{1}{2}$  x 11. Plate Glass Mfrs. of America, First National Bank Bldg., Pittsburgh, Pa.

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SKETCH OF HOUSE FOR  
W. B. DINSMORE, JR. ESQ.  
TUXEDO PARK, N. Y.

SKETCH OF HOUSE FOR W. B. DINSMORE, JR. ESQ., TUXEDO PARK, N. Y.

Donn Barber, Architect



# PENCIL POINTS

An Illustrated Monthly JOURNAL for the  
DRAFTING ROOM *Edited by* RUSSELL F. WHITEHEAD

KENNETH REID & E. L. CLEAVER *Published by* THE PENCIL POINTS PRESS, INC.  
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## New Service Features

THE SPIRIT OF PENCIL POINTS is, and always has been, one of friendliness. We regard our readers not so much as a number of individuals who pay us a certain number of dollars each year for twelve copies of the paper, but as a group (which has now grown to be an army) having similar interests and having certain requirements which we are trying in every way possible to recognize and meet.

Whenever we see an opportunity to increase our usefulness to those who pay us the compliment of subscribing for and reading PENCIL POINTS, we want to do it, and this is to announce a few little innovations which we plan to put into operation with our January issue and which we hope will prove to be valuable.

THE MART will be the name of a new department in which we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase, books, drawing instruments and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert. In this department we will also print, free of charge, notices from readers desiring to buy or sell copies of back issues of PENCIL POINTS.

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charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all. Those seeking positions are invited to call to inspect this bulletin board at any time between the hours of nine and five. Notices submitted for publication in this department must reach us before the fifteenth of each month if they are to be inserted in the next issue. Address all communications EMPLOYMENT DEPARTMENT, Care Pencil Points, 19 E. 24th Street, New York.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address, and items of personal interest will be printed under this heading free of charge. Such notices should reach us before the fifteenth for insertion in the forthcoming issue.

MANUSCRIPTS. We are constantly on the lookout for good books which will be of interest to our field. Such manuscripts should be submitted to W. V. Montgomery, Secretary, Pencil Points Press, Inc., 19 E. 24th Street, New York.

ARCHITECTURAL CLUBS. There are, in many cities, organizations embracing within their memberships both architects and draftsmen, which are doing valuable work both in promoting the interests of architecture at large and the happiness of their members. We believe that more such clubs should be organized and shall be glad to supply information to all interested on such subjects as constitutions, by-laws, and methods of procedure.

Some of our readers may think of other things we can do around here to promote the general architectural welfare. Let no such man be bashful. We are always glad to receive suggestions and to act upon them if, after careful consideration, they seem to hold elements of value to a considerable proportion of our readers. We cannot, of course, follow every suggestion made but at least each one will be considered on its merits, and all are most welcome.

## Contents

The Relationship Between Architect and Draftsman	
By Charles D. Maginnis	645
A Draftsman Turned Etcher—	
Louis Conrad Rosenberg	
By Kenneth Reid	649
The Draftsman's Christmas Card	662
The Ricker Manuscript Translations, I—Guadet's "Elements and Theory of Architecture"	
By Thomas E. O'Donnell	665
A Building on the Board	668
Renderings in Color	Insert
Plates	677-684
Whittlings	685
Here & There & This & That	
Conducted by R. W. R.	695
The Specification Desk	703

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CAMERA STUDY BY PAUL HERMANN  
"FIESOLE"



# PENCIL POINTS

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## THE RELATIONSHIP BETWEEN THE ARCHITECT AND THE DRAFTSMAN

*By Charles D. Maginnis*

THE ARCHITECT DOES NOT emerge full-fledged from the brow of Jove,— he is born to this sad world in prolonged and painful travail. As yet no meddling Malthusian has ventured to decree the point of proliferation beyond which he would become a congestion and a nuisance. I should not be surprised if I were myself expected to propose some sort of metaphysical surgery by means of which his tribe may be beneficently increased. If so, I can only sorrowfully acknowledge that my long professional life has been lived without perceiving any better than the old way of stocking the profession. It is not perfect. My own evolution may be, I fear, even disedifying. I seem forced to a disclosure.

First of all, I am wholly the product of the office. In the diffidence which comes of the sense of this, I am compelled to accept such a vindication of myself as is supplied by the philosophy of a younger brother who so far fell from grace as to abandon architectural ambitions for the depravities of comic cartooning. Calling at his studio one day I found him reclining in an apparently miserable state of mind which I related to doubtful merit of the "strip" which lay finished on his board. Venturing an agreeable disparagement I said, "It *isn't* very funny, is it?" "Oh, that" said he, "Well, as it happens, that one is funny—I got \$40. for it. Suppose you try to get \$40. for one of your superior jokes. When you

do, I shall make a great effort to laugh at it".

This may not be the final test of humor. Nor is the coming and going of clients a triumphant vindication of my choice of profession, but I can think of no better.

In the second place, I had really no right to my earliest client who came to me from a quite misguided impulse. I had written, at the request of a magazine editor, an article on Catholic architecture in America, which was then in a pretty hopeless state. I was frank,—which is saying I was rather severe,—in dealing with the matter. Much of what I said was unpalatable and provocative reading for the complacent. As I had already embarked on a career as architectural illustrator, there was no ulterior thought of evoking a client. The article chanced, however, to stir the mind of a sympathetic country clergyman on the point of building, who wired me a thrilling invitation to prepare designs for a new

church. When the building was finished, he was sufficiently gratified by the issue so that I could safely warn him then of the dangers of trusting to the creativeness of critics. In the process I was unpleasantly aware that, except for my client, who was loyalty itself, my authority to direct such an enterprise was matter of general suspicion, until it occurred to me to suggest that if I had never done a church before, I had at least the considerable advantage over more vivid



*Photo by Henry Havelock Pierce*

CHARLES D. MAGINNIS, F.A.I.A.



and obvious people of never having done a bad one! The fact remains, notwithstanding, that I got my first commission without any clearly established qualifications for doing it.

In the light of such an experience, so obviously directed by mere chance, I am a poor guide to those eager and impatient feet that would pass on to places of professional responsibility. I am conscious as well that I am expected to talk of the draftsman from the point of view of the architect with the almost certainty that, in the ingenuous editorial spirit of the day, the draftsman will in his turn be asked to talk back. An architect of my acquaintance, clever enough himself to incarnate so daring an opinion, holds that architects should make their own drawings and that there should be no draftsmen at all. In application, so quaint a principle would undoubtedly have amusing and far-reaching consequences. It would first of all put a horribly disconcerting test to our present efficiencies and humble many proud spirits. As against this advantage, I fear it would make for a somewhat sluggish professional tempo. Whether or not there is any social beneficence in the idea, it would at least be entertaining to see what would really happen if the genius of the American architect were confined, as that of his European confrere, to a highly personal exercise upon five or six buildings in a lifetime. I recall with refreshment the experience of a Boston friend who was attracted by the quality of the illustrated work of a certain English architect. During a visit to England he sought him out in the hope of an interesting revelation of personality, only to be chilled in the actual encounter by a characteristically naïve surprise that his work or himself could possibly have interested anybody. Of an undaunted curiosity, the admiring stranger was curious about the office where the delectable things were done. "Office? My dear fellow, I have nothing resembling an office. I just play off my own bat, you know." But the drawings, they are made—? "Oh, anywhere handy,—on the library table,—on the job, perhaps, when they're wanted." This languid dilettantism has its philosophy, a little of which might be good for us if an impatient American public would only be tolerant enough not to consign us to total perdition for a less temperamental profession. As long as we have to keep step with the national life, I take it that the draftsman in numbers is a necessary institution.

Of course, many draftsmen are potential architects—frequently in some respects, sometimes in all respects, abler than the men who employ them. Distinguished in our time as a class by their earnestness, high purpose and searching devotion to the interests with which they are engaged, they represent a splendid promise for the future architecture of America. Few draftsmen in their less mature years, no doubt fearful of the vicissitudes of independent practice, care to declare themselves as architects. Some do

venture forth only to return later to the board. Others, with means to tide over the inevitable lean years, are content to wait in patience for the elusive patron.

Occasionally, and not of his seeking, opportunity comes to the average draftsman for independent enterprise. If this opportunity be large enough to justify a launching of his own canoe, all is well. If not, and he embraces it as a side interest in the belief that it holds no conflict with the obligation to his employer, it may lead to difficulty and misunderstanding. There is no valid reason why the draftsman may not devote himself outside the office to any personal or professional concern whatsoever so long as it does not exact from him too appreciable a measure of the freshness and strength and enthusiasm which he is conscientiously bound to bring to the service of the architect who employs him. The dual obligation, however, is apt to develop insidiously so as ultimately to reach a stage of crisis, when the physical cost alone may be disastrous. An instance when it put a fatal strain upon the health of a very brilliant youth closely associated with myself is only too poignantly fresh in my memory.

It is conceivable that the outside interest may be of a nature corresponding to the architect's own practice so that, in the absence of a prior agreement, the revelation of it will probably break upon him with an unpleasant suggestion of disloyalty, and the sense of a furtive encroachment. Even a conscious effort at perfect parallelism of interests cannot succeed here and a breach is inevitable.

The architect is often approached for employment by men who have relinquished an unsuccessful practice and who still carry with them some of its lingering obligations and a purpose, occasionally declared and generally obvious, of resuming their independence when conditions brighten. This invites to a relation which, however admirably intentional, is likely to make for a distracted, half-hearted, and unsatisfactory service. It occurs to me to remark here upon a disposition on the part of the occasional draftsman to bring to this approach evidences of his ability in the shape of material from the office of a previous employer. These evidences may be enlightening but they may or may not carry conviction, depending on the honesty with which they are presented. Sometimes plans bearing an office label are submitted on these occasions, accompanied by a calm appropriation of the authorship, either implied or boldly pronounced. In a recent experience of this sort of thing, I noted that the label carried the name of one of the most vital and influential personalities in the profession. Practically to protest the moral claim of such a man to everything which bore his name was an act of mendacity which effectually served to defeat the intention.

It is conceivable that a draftsman may actually carry through a piece of design wholly independ-



## THE RELATIONSHIP BETWEEN THE ARCHITECT AND THE DRAFTSMAN

ently of the architect's personal direction or control, so as in effect to be exclusively its author. To represent it as such while it bears the official stamp of his employer on it is of course merely an infringement of good taste. But, as a matter of fact, I believe it to be rare when a work of even moderate consequence is accomplished within the office of the conscientious architect without its coming directly or indirectly within the sphere of his influence.

In their outlook on the profession, draftsmen have various horizons. Some regard their service as a process of qualification for an inviting field of practice which, by grace of fortunate influences or associations, awaits them on the termination of their novitiate. Many perceive their future more obscurely in relation to some dramatic opportunity—the fortuitous issue of a competition, for example, such as has set many successful careers in motion. I would not venture to guess as to the proportion of those who are satisfied to regard draftsmanship itself as a career. I think the proportion is large, for the artistic temperament shrinks from the idea of business adventure and prefers a less vivid security.

The daily relation of the draftsman and the architect is not free from occasional incompatibilities of temper and interest. There are days in the drafting rooms, away from the feverish letter file, when the architect must seem an unfeeling brute. A task assigned to one man of a morning is hardly undertaken before it is arbitrarily re-assigned to some one else. A particular problem is no sooner in a stage of effective study than it is pushed aside by the urgency of another—some client having suddenly grown fractious. One afternoon the architect seems implicitly in accord with some developing thing; in the morning, moved by some revulsion of feeling, he rushes in and upsets the whole apple-cart. In the appraisal of his men, his standards appear vague and unaccountable. The more unimaginative type of draftsman may acknowledge his disability in design but wonder at the same time why he is denied a larger opportunity for its correction,—an attitude which touches the conscience of the architect and demands in decency his sympathetic consideration. How afford this opportunity without prejudice to the immediate efficiency of the office? It is to be remembered, as an influence of the situation, that the client looks to his architect for the highest product of his organization and that the architect himself, solicitous for the reputation of his office, correspondingly feels bound to engage its best instru-

mentalities. He is obviously the logical judge of what these instrumentalities are. In this determination he is hardly likely to give deliberate preference to the poorer draftsman over the more accomplished. He errs, I dare say, often enough by choosing the wrong man for a special undertaking, but his general attitude will have no injustice to it. He is certain not to overlook evidences of talent in whatever part of the office it may appear. To detect it is obviously as much in his own interest after all as the draftsman's and no man need fail of a chance to prove his mettle. Of course, many ambitions will still suffer—and suffer painfully—as do the ambitions of most mortals. It is happily to be noted, however, that certain talents which are inept and of little value in one office are of quite respectable account in another. The characteristic qualifications of the Beaux Arts man are likely to be only occasionally effective in the romantic *milieu* of the exclusively 'ecclesiastical' office. And the disabilities are no less distressing in a reverse situation.

I realize I touch on tragedy when I refer to the yearning of the mechanically gifted draftsman who feels a latent capacity for design. The instances where such stirring becomes articulate are rare enough, for this type of ability is generally associated with a saving sanity which easily recognizes not merely its limitations but its peculiar professional importance. And, after all, are these limitations necessarily more stultifying than those of a more vivid talent in design which is uninformed by an adequate knowledge of structure?

I commend strongly the studious curiosity and enterprise of a draftsman of my acquaintance who went to the workshops for a first-hand acquaintance with the principal crafts. A few weeks in each is an experience calculated to sharpen and increase intelligence of design through the familiarity with the varying genius of materials.

No doubt in this brief review I have quite overlooked some phases of the relation between draftsman and architect which might have been profitably discussed. And I am aware there are problems associated with this relation that are peculiar to unfamiliar forms of architectural practice upon which my opinions would be impertinent and of little consequence. Whatever these may be, however, they cannot affect the dictum that the harmony which is vital to the right psychology in the office can develop only out of a mutual spirit of justice and an active cultivation of sympathy and understanding.

*This is the fourth of a series of short articles to appear in PENCIL POINTS on the subject of the relationship between the architect and the draftsman. Future contributions to the discussion will be made by the following: Walter W. Judell of Milwaukee, Albert Kahn of Detroit, H. Van Buren Magonigle of New York, F. R. Walker of Cleveland, Myron Hunt of Los Angeles, Leon C. Weiss of New Orleans, William A. Boring of New York, William Leslie Welton of Birmingham, William Emerson of Boston, and Irving K. Pond of Chicago.*



PENCIL POINTS



*Courtesy of A. C. & H. W. Dickins*

"THE CHATELET, VITRE," FROM THE ETCHING BY LOUIS C. ROSENBERG  
*Size of Original 5½" x 7½"*



# A DRAFTSMAN TURNED ETCHER

LOUIS CONRAD ROSENBERG

By Kenneth Reid

(EDITOR'S NOTE: The subject of this article is not unknown to readers of PENCIL POINTS, for we have had, from time to time, the privilege of publishing sketches and drawings from his hand. It is not generally known, however, to what extent and with what success he has ventured into the realms of etching and dry-pointing. We therefore take pleasure in presenting with this article reproductions of twelve of his distinguished plates which we believe will tell their own story as to his ability.)

LOUIS CONRAD ROSENBERG first drew the breath of life in Portland, Oregon, at the very beginning of the Mauve Decade,—1890 to be exact. It could not have been many months later when his baby fingers, clutched firmly around a pencil, began to record his impressions of the world about him in straggling lines on paper, for surely such facility as he possesses today must have begun to develop early. At the age of sixteen his talent was so far advanced that it determined him to set out upon the study of architecture, the wisdom of which course has been amply demonstrated by subsequent progress. His architectural education began in the office of P. Chappelle Brown of Portland and continued under Ellis F. Lawrence of the same city. While working in these offices he studied the Beaux-Arts problems in the local club Atelier.

From the beginning he stood out among his fellows and in 1912, at the Atelier of the Portland Architectural Club, he was awarded a scholarship to study as a special student at the Massachusetts Institute of Technology. Two years at that school, studying design under Duquesne, Lemonnier, and Edgar Williams, culminated in the award of the Travelling Fellowship competed for

annually by graduating students and younger alumni. His brilliant draftsmanship during the Technology period caught the admiration of his fellow students and as an inevitable result set the rendering style of the period. Indeed the "Rosenberg influence" persisted there for at least four years after he had left. Examination of the designs produced by other

men at the Institute during those years shows many a trick of composition or rendering which may be traced directly to a drawing by "Rosie," as he was known to his confrères.

The war, of course, made it impossible for travelling fellows to pursue their studies effectively abroad, so, until our country became involved, the young architect worked in the offices of Edward T. Foulkes, San Francisco, and of Proudfoot, Bird & Rawson of Des Moines, Iowa. Continuing his Beaux-Arts studies he won several prizes. From 1916 until the fall of 1917 he was assistant to Dean Ellis F. Lawrence of the School of Architecture, University of Oregon. When we were drawn into the war he served for a year in France as a member of the Camouflage Section of the 40th Engineers, after which, for two and a half years, he acted as assistant professor of archi-



Courtesy of A. C. & H. W. Dickins

"MOORISH ARCHWAY, TOLEDO"

FROM THE ETCHING BY LOUIS C. ROSENBERG



PENCIL POINTS



*Courtesy of A. C. & H. W. Dickins*

"THE TRANSEPTS, STRASBURG CATHEDRAL," DRYPOINT BY LOUIS C. ROSENBERG

*Size of Original 6½" x 10½"*





*Courtesy of A. C. & H. W. Dickins*

"LA RUE MIRABEAU, BOURGES," DRYPOINT BY LOUIS C. ROSENBERG

*Size of Original 4 $\frac{1}{8}$ " x 9"*



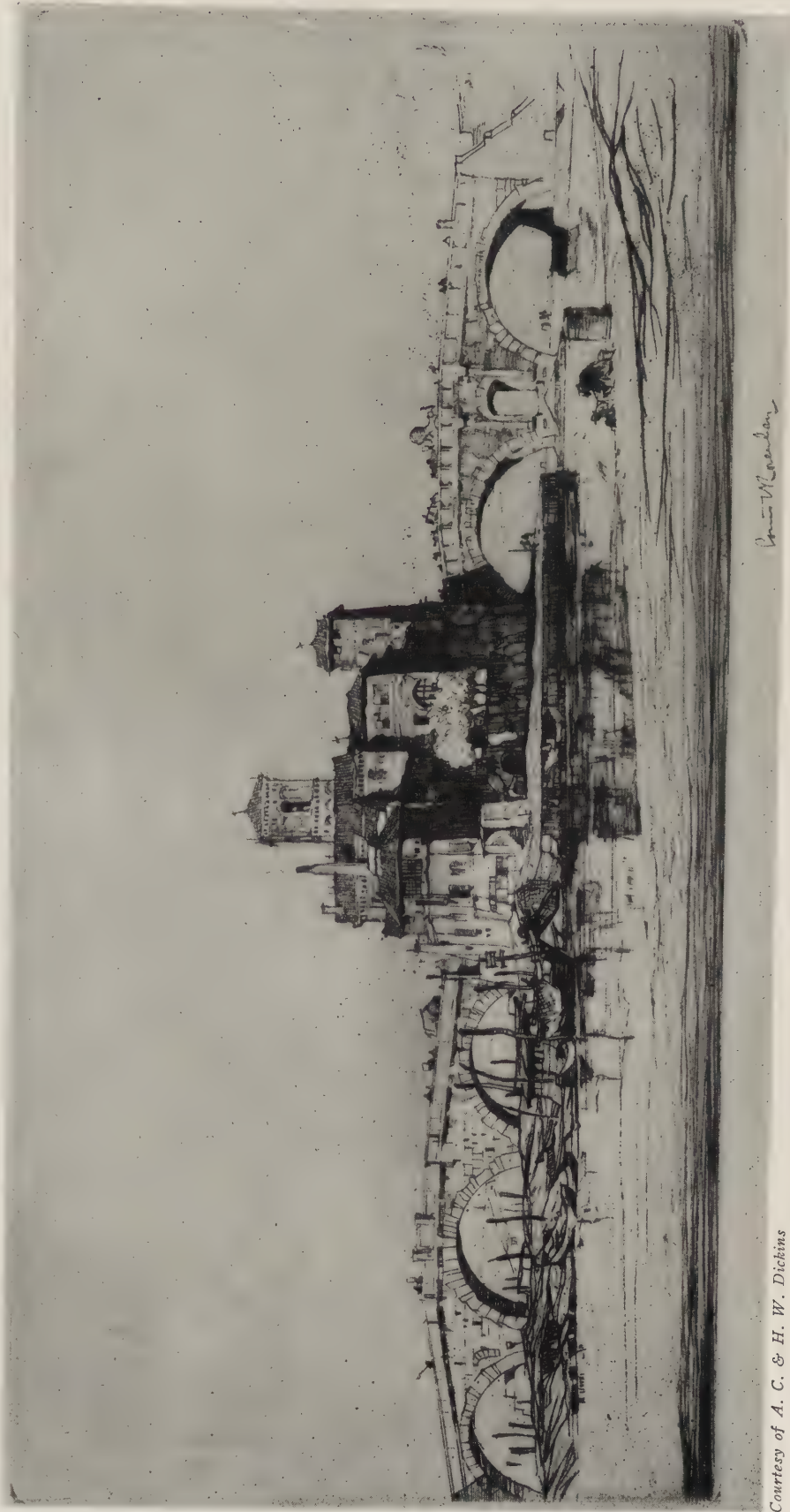


Courtesy of A. C. & H. W. Dickens

"PLACE SAINT LOUIS, METZ," FROM THE DRYPOINT BY LOUIS C. ROSENBERG

Size of Original 7" x 4 $\frac{3}{8}$ "





Courtesy of A. C. & H. W. Dickens

"THE ISLAND IN THE TIBER, ROME," FROM THE ETCHING BY LOUIS C. ROSENBERG  
 Size of Original 8½" x 4¼"





*Courtesy of A. C. & H. W. Dickins*

"MUDEJAR DOORS, SEVILLE," FROM THE ETCHING BY LOUIS C. ROSENBERG

*Size of Original 6 $\frac{1}{8}$ " x 9 $\frac{7}{8}$ "*



tectural design at the University of Oregon, deferring his Fellowship until conditions should become more settled.

In June 1920 he set sail again for the old world, this time with a kit of sketching implements in place of his army pack. For two years he traveled up and down and to and fro in England, France, Spain, Italy, Holland, Belgium, and Northern Africa, measuring, sketching and learning his architecture, at the same time acquainting himself with the picturesque bits which were to hold his fancy as an etcher. An unerring eye for pictorial quality, coupled with a hand trained to draw rapidly, economically, and expressively, enabled him to record in his note-books hundreds of sketches each of which preserved a significant bit of observed life, usually though not invariably with architecture predominant. In the collection of measured information about carefully selected architectural details and in the preparation of *envois* he was not idle but proved a dutiful scholar. The Davanzati Palace in Florence attracted him with its wealth of typical Italian Renaissance decoration, and he set about making it the subject of a well studied book to be published upon his homecoming. The charm of the cottages of Cotswold England fastened itself upon him, and he responded with another beautifully illustrated volume of photographs and sketches. At this time also he made many of the sketches which later served to informatively decorate the pages of that triumph of book making, "Old Bridges of France," by William Emerson and Georges Gromort.

Rosenberg first began to experiment seriously with etching during the winter of 1921 at the American Academy in Rome, where he wrought nine plates, each of them an example of fine draftsmanship and composition. There was nothing amateurish about them, for from the very beginning he seems to have seen things with the eye of a true etcher. At this time, however, he still considered his etching activity as a pleasurable avocation rather than as a life's work.

Returning to this country in 1922 he went to work in New York for the firm of York and Sawyer. His talent as an architectural renderer and sketcher was quickly recognized and brought him a volume of work to be done on the side,—renderings for other architects, magazine illustrations, sketches, and cover designs. The Architectural Forum owes to him its attractive series of covers run since 1922. With all this work, Rosenberg found time somewhere to sandwich in three etchings,—*San Gimignano*, *The Old Bridge at Sospel*, and *Moorish Archway, Toledo*.

For two years he worked thus, and then, prompted by his inner urgings, reinforced by the persuasions of Muirhead Bone,—who, after seeing some of his work, took the trouble to look him up in New York,—he made up his mind to turn definitely to etching for his major activity. At Mr. Bone's suggestion he made arrangements to enter the School of Engraving at the Royal College of Art, London, to study for a year under Malcolm Osborne, A. R. A. In July 1924 he sailed for France to spend the summer there collecting more material to be worked

into copper in the fall at his newly chosen school. For a year he applied himself under Mr. Osborne, learning the secrets of drypoint and pure etching from an acknowledged master to such good effect that he added to his store of accomplishment twenty more plates of distinction. Continuity of study at this school was broken into by several excursions which he made to France, Belgium, Spain, and Tangiers, all of which places furnished grist for his mill and appear represented among the plates of this period.

In August 1925 Rosenberg landed once more in New York where he has remained up until the present, dividing his time between the office of York and Sawyer, independent sketching and rendering in his own office, and etching.

Recognition of Rosenberg's achievements as an etcher has brought him election to membership in the Brooklyn Society of Etchers and to associate membership in the Royal Society of Painter-Etchers and Engravers in London, an honor not easily won. He is also a member of the Chicago Society of Etchers, by which he was this year chosen to make the plate from which three hundred and fifty copies have been printed, in accordance with annual custom, for distribution to the associate members of the society.

Of the plates which furnish the illustrations for this article, the first, *The Chatelet, Vitre*, was awarded the Logan Prize at the exhibition of the Chicago Society in 1925. It represents the Castle of the Seigneurs de la Tremoille, a structure which dates from the 14th and 15th centuries. Stonily militant, the building rears its proud head almost defiantly while the Lilliputian natives below in the square go about their business unmindfully secure. Two figures at the left, seemingly a tourist under the spell of the local *cicerone*, furnish a touch of humor. The plate is noteworthy for its skilful suggestion of textures and for the maintenance of interest in its shadows, as well as for its arrangement. The small plate captioned *Moorish Archway, Toledo*, one of the three mentioned above as being worked in odd moments during 1923, has for its subject the Arco de la Sangue de Cristo which leads from the Plaza del Zocodover to the river Tagus. It is perhaps less interesting than some of the others yet it is a simple and direct expression of a unified picture. One feels the depth of the passage through definitely substantial masonry into the market place beyond.

The next two plates, *The Transepts, Strasburg*, and *Rue Mirabeau, Bourges*, are drypoints representing more mature thought on the part of the artist. The first of these exemplifies particularly well the comment made on Rosenberg's work by Malcolm C. Salaman, Fellow of the Royal Society of Painter-Etchers and Engravers, who says, "I recognized, not the dryly accurate transcript that one finds in the usual architect's etching, but a true feeling for the pictorial aspect of the building in its functional character, with the living circumstance incidental to it lending animation to the design." The Bourges plate I consider the best of those here presented. The rich interplay of lights and velvety darks, the masterly rendition of textures, and the





Courtesy of A. C. & H. W. Dickens

"THE HOUSE OF THE SALMON, CHARTRES," FROM THE DRYPOINT BY LOUIS C. ROSENBERG

Size of Original  $9\frac{1}{8}"$  x  $7\frac{9}{16}"$





Courtesy of A. C. & H. W. Dickinson

"SAINT PETER'S COLONNADE, ROME," FROM THE ETCHING BY LOUIS C. ROSENBERG

Size of Original 9" x 5 1/8"

Louis C. Rosenberg





Courtesy of A. C. & H. W. Dickens

"APPIAN WAY, ROME," FROM THE DRYPOINT BY LOUIS C. ROSENBERG

Size of Original  $7\frac{1}{8}$ " x  $5\frac{7}{8}$ "





Courtesy of A. C. & H. W. Dickens

"THE OLD BRIDGE, SOSPEL," FROM THE ETCHING BY LOUIS C. ROSENBERG

*Size of Original 9 1/8" x 6 5/8"*



PENCIL POINTS



*Courtesy of A. C. & H. W. Dickins*

"PLAZA DEL REY, BARCELONA,"  
FROM THE DRYPOINT BY LOUIS C. ROSENBERG  
*Size of Original 4 $\frac{7}{8}$ " x 6 $\frac{3}{8}$ "*



fascinating dignity of the subject itself, a row of drowsy old houses which have the air of watchful guardianship, combine to produce a most satisfactory ensemble.

*The Place Saint Louis, Metz*, Rosenberg's first dry-point, is a thing of delicate quaintness, which calls gentle attention to the unusual buttressed and arched construction of the houses. *The Island in the Tiber* is here shown in its second state, having been originally etched in Rome in 1922. In 1925 the plate was cut from 9 1/16" x 6 5/8" to its present size and reworked with some dry-point.

In *Mudejar Doors, Seville*, Rosenberg has accomplished the difficult feat of rendering a patch of intricate detail with absolute fidelity but without making the drawing seem the least bit labored. This plate was exhibited at the Royal Academy in London in 1925. The huge doors, which formerly served as entrance to the Court of the Great Mosque, swing back far enough to catch the graceful shadow cast by the horseshoe arch and to permit a glimpse of the cathedral beyond.

The plate on page 656 gets its title from the famous old 15th Century *House of the Salmon* at Chartres, which appears at the right of the picture. Those familiar with the locality will recognize that the arrangement was drawn correctly on the plate, so that the print appears reversed from left to right. This dry-point, which is the last of the artist's catalogued works (although he has done several plates since), is particularly rich in pattern, with luminous shadows. Textures of wood, stone, stucco, and slates are suggested with certainty but without obtrusiveness. There are just enough carefully disposed figures to give to the old *Place de la Poissonnerie* that atmosphere of naturalness necessary to a successful picture.

*Saint Peter's Colonnade, Rome*, was one of the early plates executed at the American Academy. A print of its first state, size 9 3/8" x 6 3/4", was awarded the Silver Medal of the Print Makers' Society of California in 1924. Rosenberg has drawn the familiar colonnade with astonishing gradations in the complex shadows. The figures show an almost

epidemic prevalence of bow-legs among the Italian populace but, of course, all things are possible in Rome.

*The Appian Way*, a most poetic dry-point, is not particularly architectural but it is undoubtedly one of the most pleasing of Rosenberg's works. A trio of stately stone pines cast shadows which cling to earth, caressing every variation in the profile of the roadway.

*Old Bridge Sospel*, and *Plaza del Rey, Barcelona*, an etching and a dry-point respectively, wind up our list of illustrations. The former was developed from one of the sketches made by Rosenberg for "Old Bridges of France" and shows an ancient military bridge basking in the warm Riviera sun. A hopeful fisherman stands in the shade uncertain as to where to cast his line, while sturdy members of the less idle sex are busily about their bleaching. The subject of the other plate is a view in the center court of the former Palace of the Counts of Barcelona and the Kings of Aragon. The larger arch throws a friendly arm protectingly about its smaller brother. The unusual constructional arrangement was undoubtedly what attracted the etcher's attention to the picture.

In all these plates it will be seen that Rosenberg regards etching as a serious art, worthy of thoughtful study. He treats it as essentially a line medium and is especially interested in the problems of expressing texture and of maintaining variety and interest in the shadows. For each plate he makes many studies in pencil before touching the copper. His work reflects his native reticence.

In person, Rosenberg is a nordic blond, blue-eyed and of medium height. He modestly gives much credit for his success to those who helped him during his early studies. He feels a particular debt of gratitude to Dean Ellis F. Lawrence of the University of Oregon, one of his first employers and later a sympathetic friend. Rosenberg's future development as an etcher, seen in the light of present accomplishment, holds much promise. I am not given to dogmatic prophecy, but I believe it safe to say that he will be, when his art has come to full maturity, one of the leaders in his chosen field.



# THE DRAFTSMAN'S CHRISTMAS CARD

AT ABOUT THIS SEASON, when ten pages of the calendar have followed one another into the wastebasket, your person who is addicted to the habit of sending greeting cards for Christmas and the New Year is beginning to think of what he is going to do about it this year. If he is sore pressed for time, or inclined to be lazy, he can, of course, pick out a stock design at his stationers' and can have his name tastefully engraved or printed thereon. This is settling the matter with a minimum of effort. If, however, he cherishes a desire to make his Christmas card more personal, and if he is furthermore gifted, as all draftsmen should be, with the ability to design and draw, he has the opportunity of creating his own card, into which he can introduce something of his own personality. Such a card will mean infinitely more to his friends than the machine made type even if it is a bit amateurish in execution.

For the man who intends to make his own Christmas card there are a number of perfectly good graphic processes available. He may choose to make a simple line drawing, which can be reproduced by the photo-engraver's zinc or copper line cut and printed by any print shop. By judicious selection of paper, which can be obtained today in enough varieties of texture and color to please any taste, this process can be made to furnish some very delightful results. If the draftsman does not excel in pen-and-ink drawing he can make his design in pencil or wash, which can be reproduced by the half-tone process. For either of the preceding methods

of reproduction, photographic prints made from the original drawings on suitably sensitized cards may be substituted.

For those who are more ambitious to achieve distinction there are the etching, the drypoint, the lithograph, the wood block print, and the linoleum cut to choose from, to name but a few. Any of these processes may be successfully employed by a draftsman possessing a moderate amount of manual skill.

PENCIL POINTS has selected, to illustrate this article, a group of designs which by their variety may be provocative of ideas. The first of them, by Leon Keach, was made from a line drawing, reproduced by a line engraving, and printed on handmade, deckle-edged, dull green cards purchased with envelopes to match. A set of colored pencils was called into play to add the desirable modicum of color harmony. The card was made more personal by the introduction, at the top, of the coat-of-arms of the Pest Club of Rome, a select organization of which its author is a charter member.

The second and fifth designs, reading across the bottom of these pages from left to right, were made and sent in successive years by Albert Kruse of Philadelphia. One is a half-tone reproduction of a lithographic pencil drawing printed on the outside of a folded sheet of white paper. In order to keep the half-tone from smooching (which such things are likely to do), the printed design was sprayed with fixatif, a procedure which, unintentionally perhaps, added richness to an already velvety texture. The other product of the House of Kruse is a well executed



COLORED DESIGN BY L. KEACH



PENCIL DESIGN BY A. KRUSE



LINE DRAWING BY C. STEARNS



## THE DRAFTSMAN'S CHRISTMAS CARD

ed line drawing done in the Assyrian manner. It was printed from a line cut on white linen paper  $3\frac{1}{4}'' \times 5\frac{1}{2}''$  and then mounted on a light brown card size  $5\frac{3}{4}'' \times 8''$ .

The friends of Chandler Stearns received very attractive greetings last year, as per the design shown, printed in blue ink on silver paper and mounted on French blue cards. The Three Wise Men were here handled in an entirely different way from that elected by Kruse.

An unusual design is that by Margaret and Hutton Vignoles. It was printed, apparently, from a set of three wood- or linoleum-cut blocks on very thin Japanese silk paper. The tree and bird are black, the sky and inscription are blue, and the full moon is a bright orange. The striking feature about the execution of this design is that the printing was done on the back of a sheet of the paper four times the area of the final product. When this sheet was folded in four, the moon, printed on one quarter, came into proper register with the other two colors, printed on another quarter, and the whole business showed through the tissue as shown here. One advantage of printing on the back is, of course, that the lettering on the original block did not have to be cut in reverse.

Louis Skidmore, this year's winner of the Rotch Travelling



PEN-AND-INK BY LOUIS SKIDMORE

Scholarship, sketched one of the portals of Rheims in pen-and-ink from a photograph and had it reproduced in line on a folded sheet of deckle-edged, antique, laid paper. On the inside of the folder, greetings and a signature were added in handwriting to complete the significance.

The woodcut by J. J. Lankes is one of a series of greeting cards cut by this well known artist. It is included here because it struck the editorial fancy and also because it is a good example of the effectiveness of this particular medium of expression. The American winter is suggested with economy and simplicity, and the holiday spirit is gracefully conveyed by the emblazoned scroll. It looks easy to do but just try it.

Richard Powers is represented not by his own card but by one he did for a client of his firm. The entrance doorway shown is, naturally, that of the house the firm designed for aforesaid client. What could better express an air of friendly hospitality?

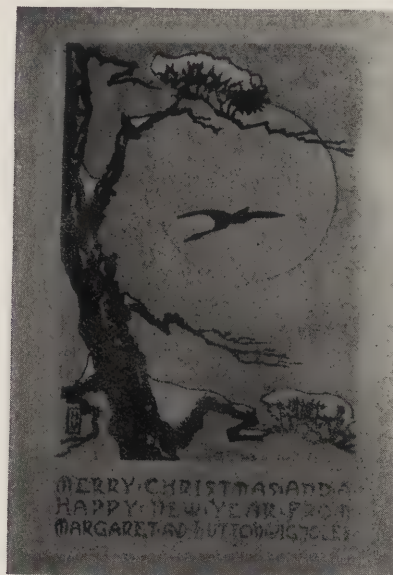
For the last we have saved Sam Chamberlain's card of 1924. A pen-and-ink portrait of the town of San Gimignano, to which was added a characteristic greeting, was reproduced by photography on post-card size cream tinted stock with a matte



WOODCUT BY J. J. LANKES



PEN-AND-INK BY ALBERT KRUSE



BLOCK PRINT BY H. VIGNOLES



## PENCIL POINTS

finish. The artist's friends who were favored with this distinctive card could not fail to appreciate its highly personal quality.

Choice of a suitable subject for one's greeting card is always one of the most difficult questions to be settled. To do something original is everyone's ambition, yet everything under the sun seems to have been tried. One usually ends up by using one of the old, old ideas, attempting to achieve individuality by novel treatment. At the risk of being needlessly trite we are going to review the principal types of design in common use for the sake of furnishing a brief record of precedent.

The obvious thing to do is to ring some change on the true Christmas idea. The real significance of the season being the celebration of the anniversary of the birth of Christ, any one of the circumstances attending this event may be appropriately used. The Three Wise Men making their way to Bethlehem, guided by the Star in the East, their adoration of the Christ Child, the flight into Egypt,—any of these is capable of being decoratively delineated without being unduly plagiaristic as to design.

Closely associated with this idea is the expression of religious observance achieved by representation of the entrance of a church or of its interior with a ceremony going on. Candles, seven-branched candelabra, and other symbolizations of churchly celebration may also be used to suggest this phase of Christmas.

The Santa-Claus legend has furnished a set of Christmas ideas which may appeal to some but which will seem offensively puerile to grown-up draftsmen.

A more popular notion is that of Christmas Good Cheer as indicated by suggestions of feasting and revelry. A rotund, mediaeval-clad page bearing a flaming

boar's head, roast pig, or plum pudding, or perchance a brimming bowl of punch or ale has been often used to express this conception of the holiday, and will be used again as long as gustatory appreciation endures. It has not yet, happily, been legislated out of existence.

The old custom singing carols gives us another subject for timely picturization. A band of serenaders singing in the street under brightly lighted windows always makes a pleasingly seasonable scene for a card and can be worked up in a great variety of ways.

From Dickens we inherit the inn-yard with its Christmas coach-load of merry passengers bound to a feast,—horns blowing, horses pawing, impatient to be off,—a spirited scene if there ever was one.

The current craze for ship-models has led, in recent years, to the use of sketches of galleons, frigates, caravels, and what-not, supposedly bearing good fortune to the recipient of the card. Though the idea has been worked hard, it can lend itself to attractive designs.

Snowy landscapes, usually including comfortable looking houses, or perhaps close-ups of the inviting entrances of hospitable homes, are good architectural subjects for the draftsman's greeting and offer infinite variety in the forms they may take.

The catalogue is brought to a close with the neatly lettered sentiment embellished with conventional sprays, borders, garlands, or wreaths of holly, mistletoe, laurel, or evergreen. They are; the draftsman can take his pick, or if he be imaginative enough he can ignore them entirely. The essential is that he get busy now and not wait until Christmas eve, or even until after New Year's Day as some draftsmen of our acquaintance have done in years past.



PEN-AND-INK BY RICHARD POWERS



PHOTOGRAPHIC CARD FROM PEN DRAWING  
Samuel Chamberlain's 1924 Greeting



# THE RICKER MANUSCRIPT TRANSLATIONS, I

## GUADET'S "ELEMENTS AND THEORY OF ARCHITECTURE"

By Thomas E. O'Donnell

*This is the first article on the Ricker Manuscript Translations which Thomas E. O'Donnell, Assistant Professor of Architecture at the University of Illinois, is preparing for PENCIL POINTS. Each article in this series will bring out the essentials set forth in the book as translated by Dr. N. Clifford Ricker and where possible will be illustrated with selected plates from the original publication.—EDITOR.*

OF THE MANY VOLUMES in the collection of Ricker Manuscript Translations, perhaps those most directly useful to the draftsman and student of architecture, are the four volumes on the "Elements and Theory of Architecture," by Julien Guadet, former Inspector General of Civil Buildings and Professor and Member of the Supreme Council, Ecole des Beaux Arts, Paris.

Julien Guadet, (1834-1908) was born in Paris, of a distinguished family. He first received a thorough training in the Classics, then entered the Ecole des Beaux Arts where he passed through a fine career and later was associated with Garnier on the Paris Opera House. In 1864 he won the Grand Prix de Rome, and while at the Villa Medici distinguished himself in his studies and by fine drawing. Upon his return to Paris, under the master, André, he became attached to the work of the Museum of Natural History. This he left, later, to direct the construction of the great Paris Post Office. In 1817, he assumed direction of one of the Ateliers at the Ecole des Beaux Arts, which he conducted until 1894 when he was appointed to the Chair of the Theory of Architecture, which he held until the time of his death.

During this long period of years in the Ecole he matured his work on the Elements and Theory of Architecture, and gave it in a regular series of lectures to all the students in architecture at the Ecole des Beaux Arts. These lectures were later collected and published in four beautifully illustrated volumes, which were translated into

English by the late Dr. N. Clifford Ricker, whose manuscripts we now have under consideration. It is proposed in this article to make a survey of Volume I, to give some idea of its purpose and content, and by selected paragraphs from the

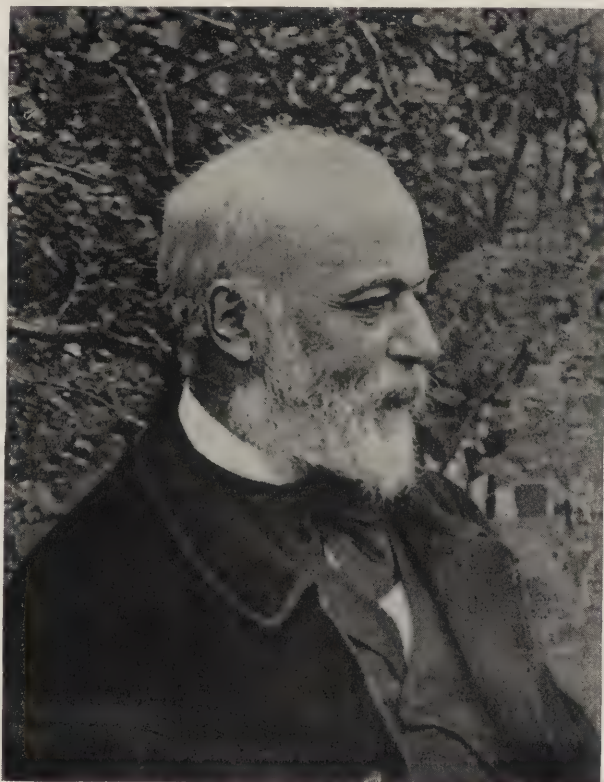
translation show something of the character of the teachings of this French Master of the Theory of Architecture.

Volume I, is divided into five "books." The first book, on Preliminary Studies, includes a discussion of preliminary instruction, drawing instruments; architectural drawing, modeling and washes. The second book, includes chapters on the program of the Course on Theory of Architecture, directing principles, general rules of composition, general proportions, specific proportions and the art and science of construction. Books III, IV and V consist of detailed studies of the Elements of Architecture, and their importance and relation to the proper study of theory in its broadest sense.

In the opening chapters of Volume I, Guadet sets forth the

purpose of his lectures and their relation to the student progress in his studies. Having been in charge of an atelier for many years he was fully aware of the value of a knowledge of the elements of architecture and realized that the student must first know the elements and how to draw them before he could hope to compose those elements into an intelligent design. Consequently, Guadet proposed, not lectures on pure theory alone, but rather a comprehensive study of both elements and theory.

He insists that first of all there must be a



JULIEN GUADET, (1834-1908).

*Lecturer on the Elements and Theory of Architecture, Ecole des Beaux Arts, Paris.*

*Taken from the frontispiece in his first volume on the "Elements and Theory of Architecture".*



knowledge of the elements—"Know first, then choose." The order of study should be first; knowledge of the elements, second; knowledge of the elements of composition, third; the composition itself. "The architect first requires preliminary knowledge that is not yet architecture."

Concerning the acquiring of skill in drawing, Guadet, is very emphatic. He says: "But one thing is to be said of drawing, that you will never be too much of a draftsman. Study drawing in a serious and severe fashion, not to make pleasing sketches, but to accurately make a form and an outline; learn to know your model and to faithfully render it, whatever it may be; be a loyal draftsman, rarer than you suppose. Only the study of drawing will make you perceive proportions, those extremely delicate shades that defy the compasses and yet are perceived by the eye; it will give you fertility, imagination and artistic wealth. This is so true, that we always see the most skillful draftsman become the most fertile designer, most endowed with imagination and ingenuity, both for conceiving the arrangement of a plan and for projecting an ornamental façade, and this should be so, for in art all things are connected and drawing is the corner stone of all the arts."

"The study of drawing is completed by that of modeling, another form of drawing, for in drawing or modeling not the hand is trained, but the eye, the faculty of observing correctly; while drawing teaches you to see the appearance of objects, modeling teaches you to observe their reality, and more directly prepares you for the sense of architecture."

In Chapter III, of the first book, Guadet deals at considerable length with architectural drawing. "Architectural drawing is geometrical drawing, accurate drawing, and may be termed drawing in particular."

In the discussion of architectural drawing he begins with a study of the plan by means of axes. These he describes as "the key of drawing and composition.... On an architectural drawing it is necessary to first begin with axes." In the study of sections and elevations the vertical axis lines are also of great importance. After the simple line drawings are completed, the next step to be considered is the modeling or rendering. "The drawing is complete only if on the drawing be placed the shading, that is, the expression of the form.... The wash is the most common procedure for shading an architectural drawing." There must be "shading of shadows and shading of light." Nature gives the key to the method of shading but must be conventionalized in architectural drawing.

The opening chapters of the second book of Volume I, consists of Guadet's Inaugural lecture on the Course on Theory of Architecture, the directing principles and program of work of the Ecole des Beaux Arts. In general, this is a description of the Beaux Arts system of teaching architectural design which, of course, is the pro-

totype of our American Beaux Arts Institute of Design, which in recent years has become familiar to most students of architecture in this country, although in use in France for many years.

In the chapters which follow, Guadet goes at once into a study of the rules of composition in architecture and some of the simple but very important practical considerations that must be observed in every design. Composition, when applied to the plan, must first of all be "dictated by the use of building."

"Everything .... is related to a judicious, economical and useful arrangement .... But this is not all—a people that sees only the useful in architecture without desiring to see the beautiful, renounces all civilization. Your composition must then be controlled by another consideration of beauty. This is the undying principle that the useful is pleasing."

"Symmetry, but with variety, should generally be sought .... Symmetry is the regularity of what is seen at a single glance; symmetry is intelligent regularity." Exact balance,—part for part, "is not symmetry but nonsense." "A beautiful plan .... is concise, and one must understand by it, a plan that permits and promises beautiful interiors and façades."

"The picturesque," says Guadet, "should not be sought,"—"one does not compose the picturesque, which is only composed by the work of the greatest artists and by time." Variety is important, even necessary, but we should not seek variety for the sake of variety.

Concerning tradition he said, "The finest epochs are those in which tradition was most respected, when progress was continuously perfecting, .... evolution and not revolution. .... There neither is nor has ever been spontaneous generation in arts; between the Parthenon and the temples preceding it are only shades of difference."

On the subject of proportions, both general and specific, Guadet deals at length. In architecture proportion "is the harmony between the different parts of an entirety. .... Authors have sought to establish a dogma of these proportions", rules of proportion and by numbers and ratios set up a means of computing proportions, but all such should be abandoned. "Proportions are infinite", and should be felt rather than measured. Drawing the Orders, for instance, by the rules of Vignola or others, he denounces as foolish. "Proportion is at first and primarily a quality of composition." Proportions are variable; an element of a given size may be of proper proportion in one building but out of proportion in another and similar structure. The nature of every composition is usually such as to require specific proportions for each and every architectural element in the composition. Again, "The same motive of composition produces absolutely different expressions, according to the proportions assigned to it by the will of the architect. Or in other terms



.... proportions are the architect's means for giving to his work the character desired by him." Therefore, "the architect must be master of his proportions." The architect has the liberty of changing or varying the proportions of any or all parts of his composition. There are no formulas,—“But this freedom must be exercised rationally and not by irrational caprice. If architecture has no rules, it has laws, that cannot be violated with impunity.”

From general proportion in composition, Guadet passes at once to a consideration of specific proportions, and a search for conditions that cause a variation in proportions, in such elements, as the Orders, colonnades, doorways, windows, and arches, when used singly or in combination.

For instance, taking as an example the antique Orders that are habitually regarded as almost unchangeable in proportions, he shows that when the orders are constructed on a very large scale they must be made in different proportions than the same order when used on a very small scale. Again, if used in repetition, as in a colonnade, the proportions of the columns must be changed, especially in the matter of spacing. He puts down this general law: “In colonnades and, in general, in structures covered by lintels, the greater the effective dimensions, the spacing of the columns is the more narrow; the smaller the dimensions of the building, the more widely should the columns be spaced.”

In the superposition of one colonnade above another, the proportions of the columns and the spacing must be different from those of a one story colonnade. The lower range must be made heavier and the upper range lighter, for, “in architecture a support should be larger in appearance than the supported part,” a very simple law of reasoning but one too often forgotten in modern design.

“Another cause of variety in proportions in colonnades is the difference in number. If a façade motive such as a colonnade or projection be composed of two, four, six, eight or ten columns, the proportion (spacing) will become narrower as the number increases. Two columns require a very wide projection, eight or ten columns a very narrow one” .... “The shades of proportions .... are infinite, and are based on personal taste.”

The same general reasons apply to doors and windows, whose proportions are dictated in part by custom. The proportions of doorways, and windows, of width to height at one to two, is not an absolute rule. The size of openings should be in proportion to the façade, story heights, etc.

“Indeed, this condition of the height of the stories first determines the proportions of the windows. The widths, only, vary within quite restricted limits. .... Then you often see in the same edifice varied proportions for windows, notably when superposed in several stories.” Not only the requirement of the façade, but the

conditions of the interiors as well, affect the proportions. “The heights of the stories rule the heights of the window; but even in that relation are possible differences according to whether your interiors are vaulted or have horizontal ceilings, are wide or narrow. Every window is made to light an interior, and must first satisfy that program. It will be still different according to whether it is to be a house window, a window lighting a room intended for work or study; the window of a hospital will have its special proportions, as well as the window of a school or of an academy. .... Perhaps nothing in architecture lends itself to proportions more varied than windows.”

Guadet considers the art and science of construction of most vital importance in the study of Theory of Architecture. Architecture should be an expression of construction. “This is not an imaginative art, nor is it an art of arbitrary conceptions or primarily of esthetics. It is before and above all the art of truth; the true has its needs to satisfy, and truth in construction presents the means. .... Structures are the object of architecture; construction is the means. .... Architecture is an art and a science.”

“The ancient and very logical division of the successive operations of architecture were: (1) Composition, (2) Proportion, and (3) Construction. At the School we do not construct, but all that we make is constructable; an architectural conception otherwise does not exist.” The procedure of the thought of the architect must then be, “To move within the domain of the constructable, there to create or select combinations, study their proportions; then after its idea is fixed, to ask science to verify the stability of its walls, vaults, floors and roofs.” “In art, science does not create”—it can only verify structural truth. —“Art alone can create, can combine the elements,—that is, design.”

The three last books of volume one are entirely given over to a very minute discussion of all the more important elements of architecture and the proper method of combining them in architectural composition. Guadet begins his discussion with the very simplest of architectural elements, the wall, and progresses on through all the architectural elements and features usually met with in all classes of buildings, both large and small. From simple walls he passes to connected walls, effect of thickness of walls, character and decoration of walls, cornices, doors and windows, grouped openings, porticos, the antique Orders, development and application of the Orders, construction and composition of roofs, domes, spires, floors and ceilings, vault construction and decoration, stairway and secondary elements of architecture. In all these discussions both logical, truthful construction and the infinite aesthetic possibilities in the use of each of the elements are brought forward, and everywhere in his book he urges the student to “first know the elements,—then compose.”





PERSPECTIVE STUDY OF ORIGINAL SCHEME



ELEVATION STUDY OF ORIGINAL SCHEME



STUDY FOR FRONT ELEVATION ON SMALLER LOT



STUDY FOR SIDE ELEVATION ON SMALLER LOT

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

*Arnold W. Brunner Associates, Architects*



# A BUILDING ON THE BOARD, II

SHOWING THE PROGRESS FROM THE SKETCH TO WORKING DRAWINGS  
OF THE FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

*Arnold W. Brunner Associates, Architects*

THE SUBJECT of this month's article under the above heading is the design of a Christian Science Church as made by William Gehron, Sidney F. Ross, William F. Pennell, and Merle W. Alley, composing the firm of Arnold W. Brunner Associates.

The first preliminary studies for the First Church of Christ, Scientist, at Jackson Heights, N. Y., were prepared with an assumed building lot of approximately 100 ft. x 200 ft. located at the junction of a main avenue and a cross street. Sketch designs, as shown by the plan on this page and the small illustrations at the top of page 668, were presented for the Building Committee's approval but it was found that the cost of construction for this scheme was prohibitive.

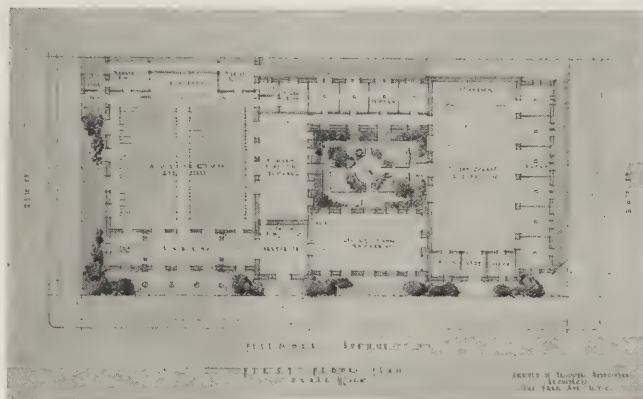
It was decided to use a lot 100 feet square and the second set of preliminary studies were prepared on this basis. The two elevations shown opposite and the two plans on page 671 were submitted to the Building Committee, who, after due consideration, decided to proceed with the building program in general as shown. It will be noted that the building is shown in the sketches as reversed from its final orientation, indicated by the working drawings on pages 672 to 675. This is due to the fact that it was found possible to purchase the lot across the street from that originally considered. By this change the church was enabled to have sunlight in its auditorium in the morning instead of in the afternoon, while at the same time its main entrance was on the avenue.

After word was given to go ahead, plans and elevations were developed and studied at larger scale, prior to the preparation of the working drawings. On page 670 are shown three of the many office studies made during the course of the design. This study resulted in a number of changes from the original sketches submitted to the Building Committee.

The stairway next to the street corner and leading to the portico was omitted, because of its awkwardness, and the remaining one was increased in width. The three entrance doorways shown on the preliminary sketches were reduced to one main entrance door with a

window at either side. This change was made for appearance's sake and also as a simplification of plan expression.

The wall surface of the main façade directly back of the portico was finally designed with a stucco finish instead of brick as originally intended. This, it was believed, resulted in a pleasing contrast of materials. Further study of the façade brought about the decision to do away with the windows on either side of the portico together with the octagonal windows above. The coat room to the right is sufficiently well lighted by a side window, while the interior stair to the left does not require direct exterior light. Elimination of the windows was felt to be a simplification and improvement of the design.



SKETCH PLAN OF ORIGINAL SCHEME

A bay window was added to the reading room so that special books and other exhibits could be put on display to be seen from outside.

On the original sketches of the side elevation five arched head windows were shown, but in the final version one of these windows was omitted for practical reasons and for the betterment of the design of this façade.

The unassigned room, adjacent to the auditorium shown on the preliminary plan was omitted and the toilet rooms also shown on this plan were relocated on the ground floor. These changes enlarged the interior garden approximately fifty percent and provided better light and ventilation for the auditorium.

A rough cardboard model, constructed to scale, was made before the final working drawings were completed in order to determine the most satisfactory roof-pitch.

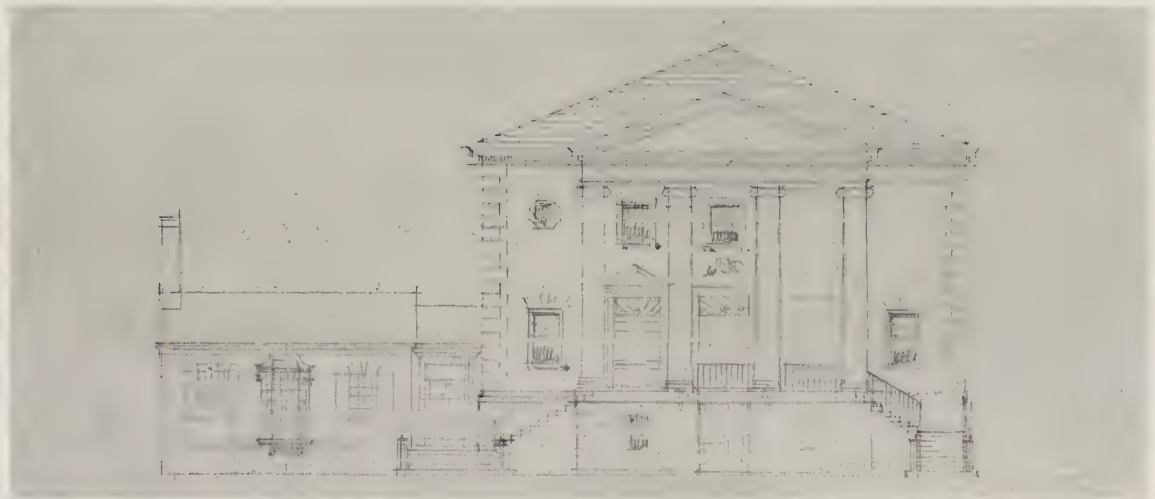
Comparison of the original scheme for a larger plot of land with the final solution is interesting in that it shows that every essential feature was retained in the more compact arrangement. There was, of course, a reduction in the space allotted to certain of the rooms and also a loss in the picturesqueness of the composition of the masses. The building is, however, a good example of what careful planning can do when a curtailed appropriation has to be effectively expended to secure maximum results.



PENCIL POINTS



REVERSED PERSPECTIVE STUDY



ELEVATION STUDY AT EIGHTH-INCH SCALE



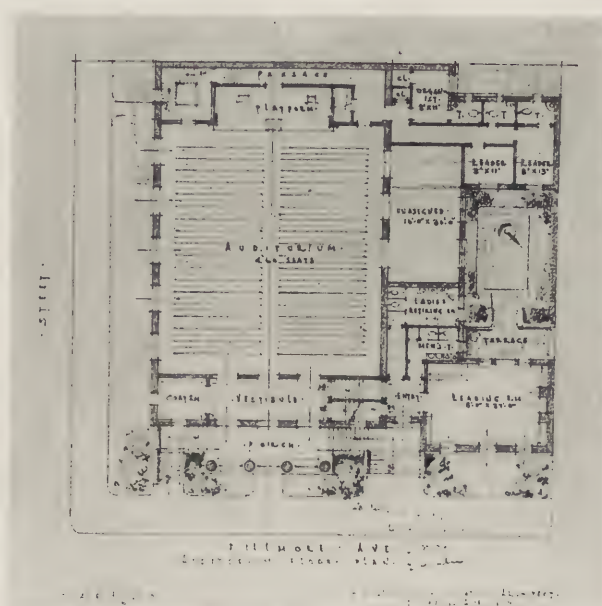
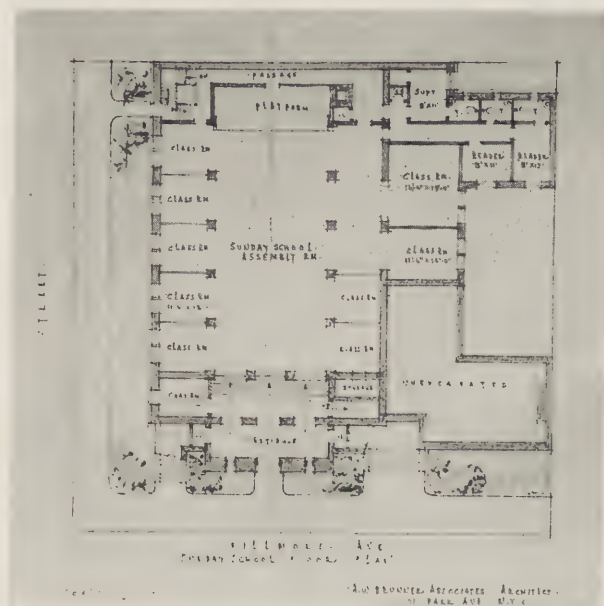
ELEVATION STUDY AT EIGHTH-INCH SCALE

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

*Arnold W. Brunner Associates, Architects*



# A BUILDING ON THE BOARD



SKETCH PLANS OF AUDITORIUM AND SUNDAY SCHOOL FLOORS



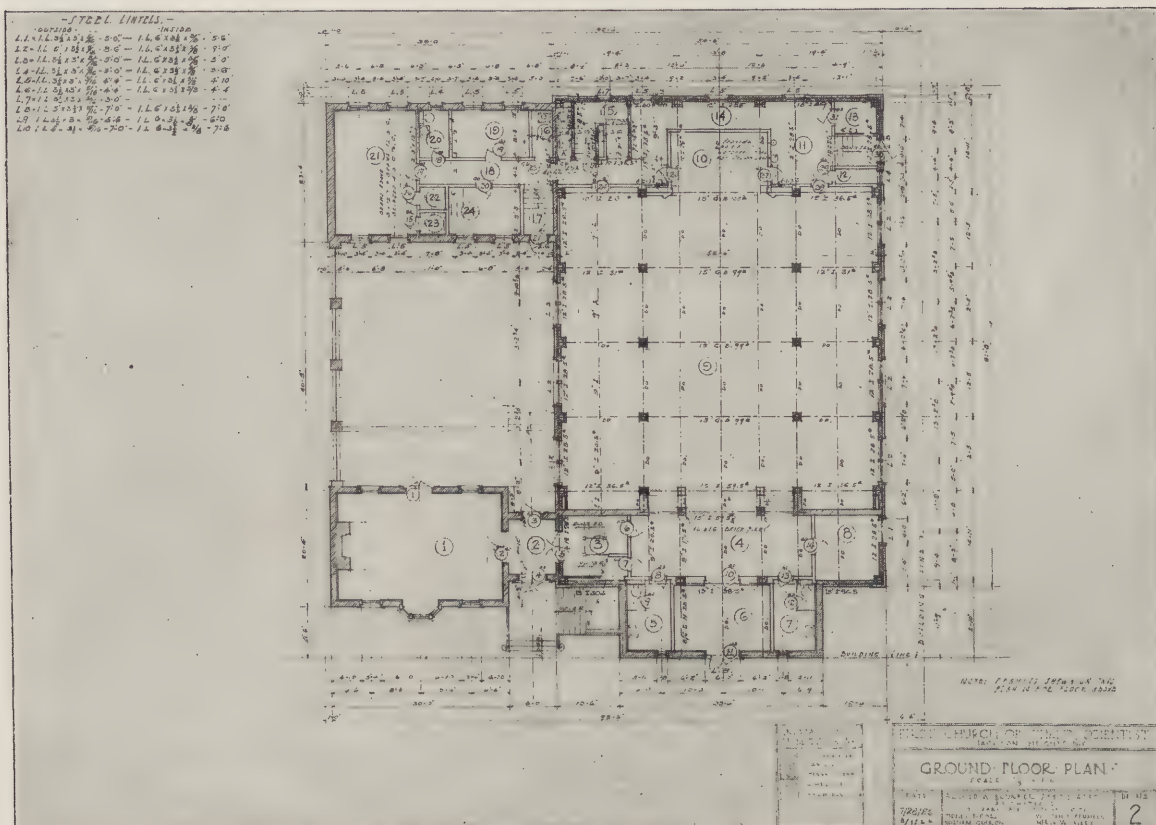
SKETCH OF INTERIOR LOOKING TOWARDS PLATFORM

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

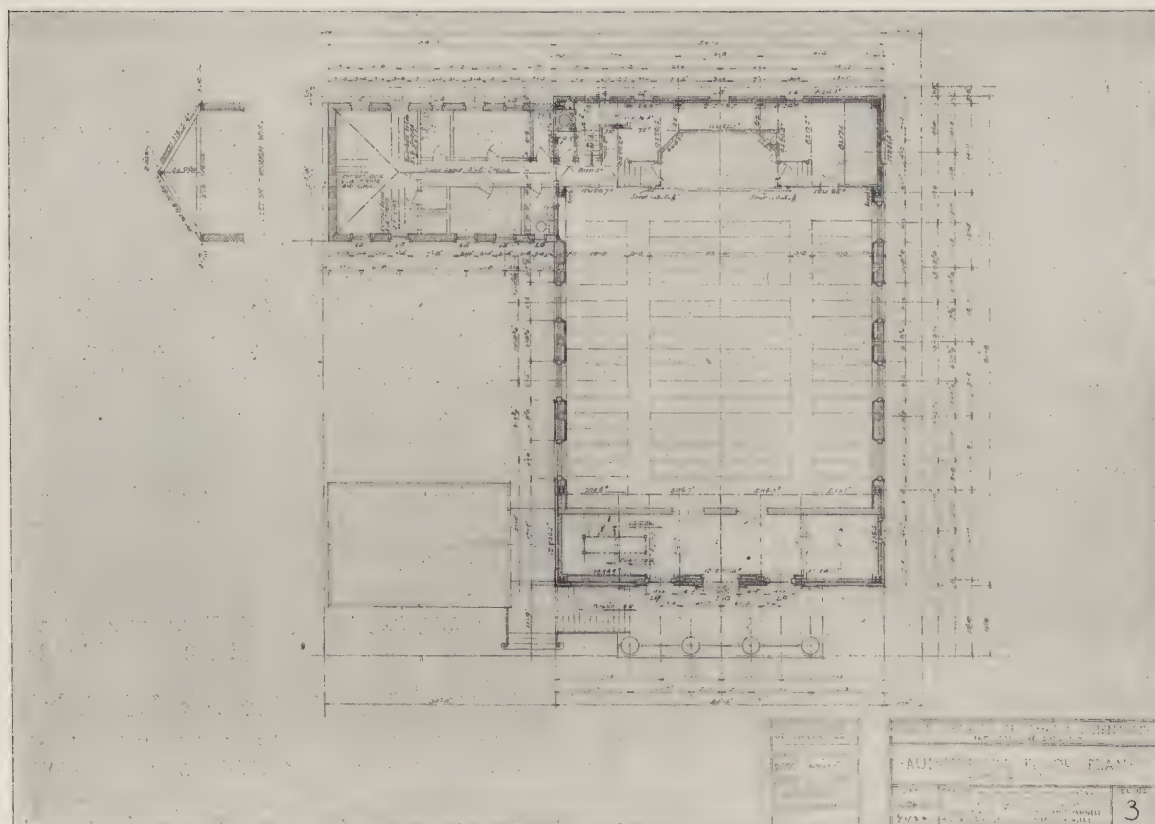
Arnold W. Brunner Associates, Architects



# PENCIL POINTS



GROUND FLOOR PLAN



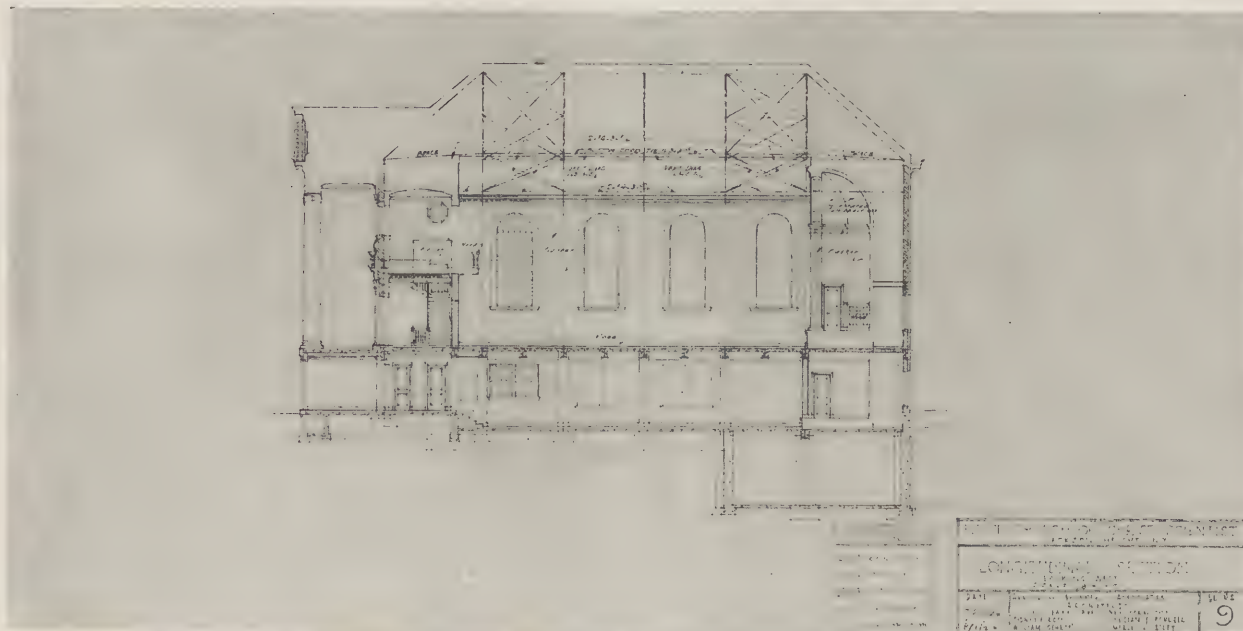
AUDITORIUM FLOOR PLAN

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

Arnold W. Brunner Associates, Architects



# A BUILDING ON THE BOARD



FINAL LONGITUDINAL SECTION

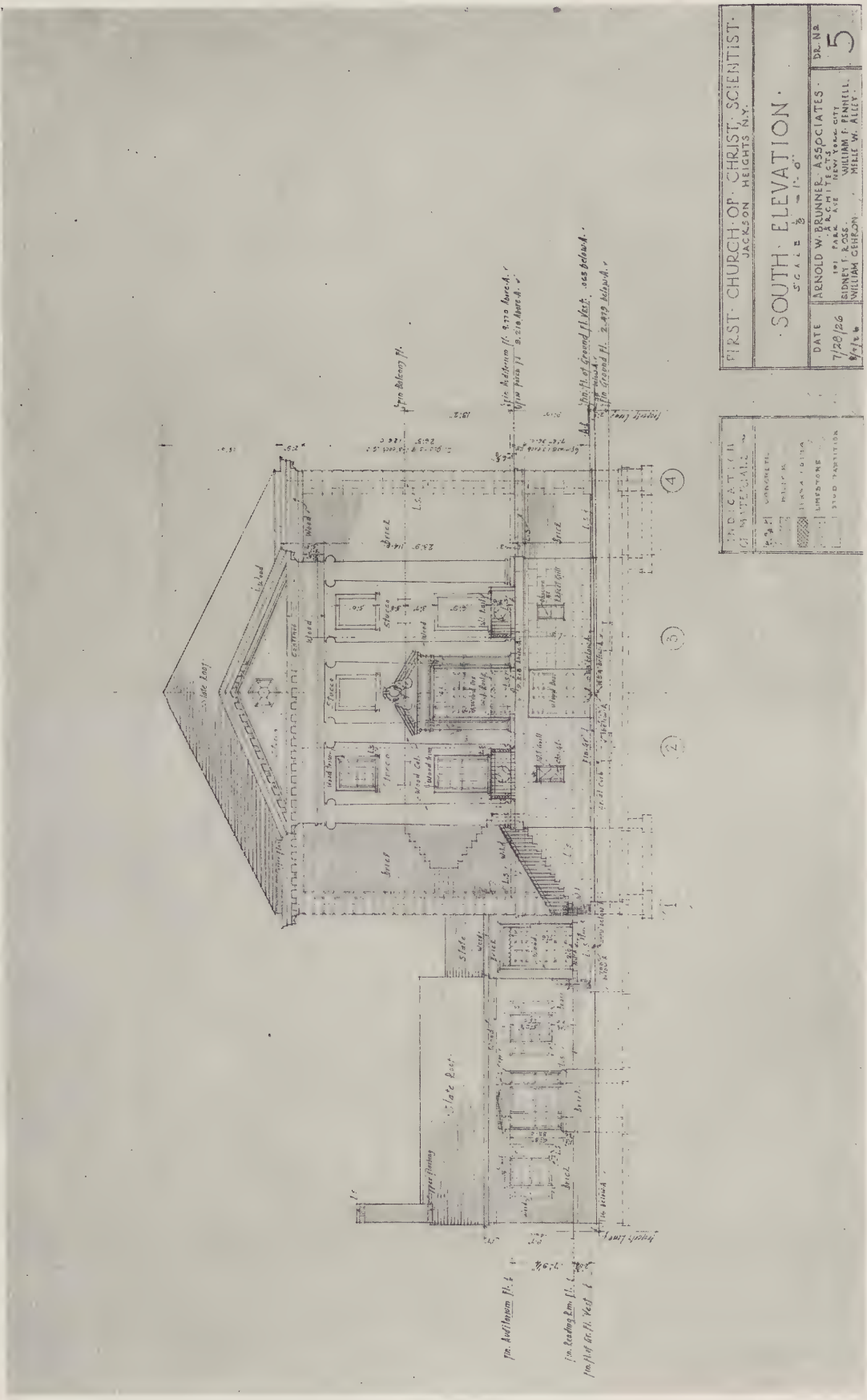


FINAL CROSS SECTION

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

*Arnold W. Brunner Associates, Architects*



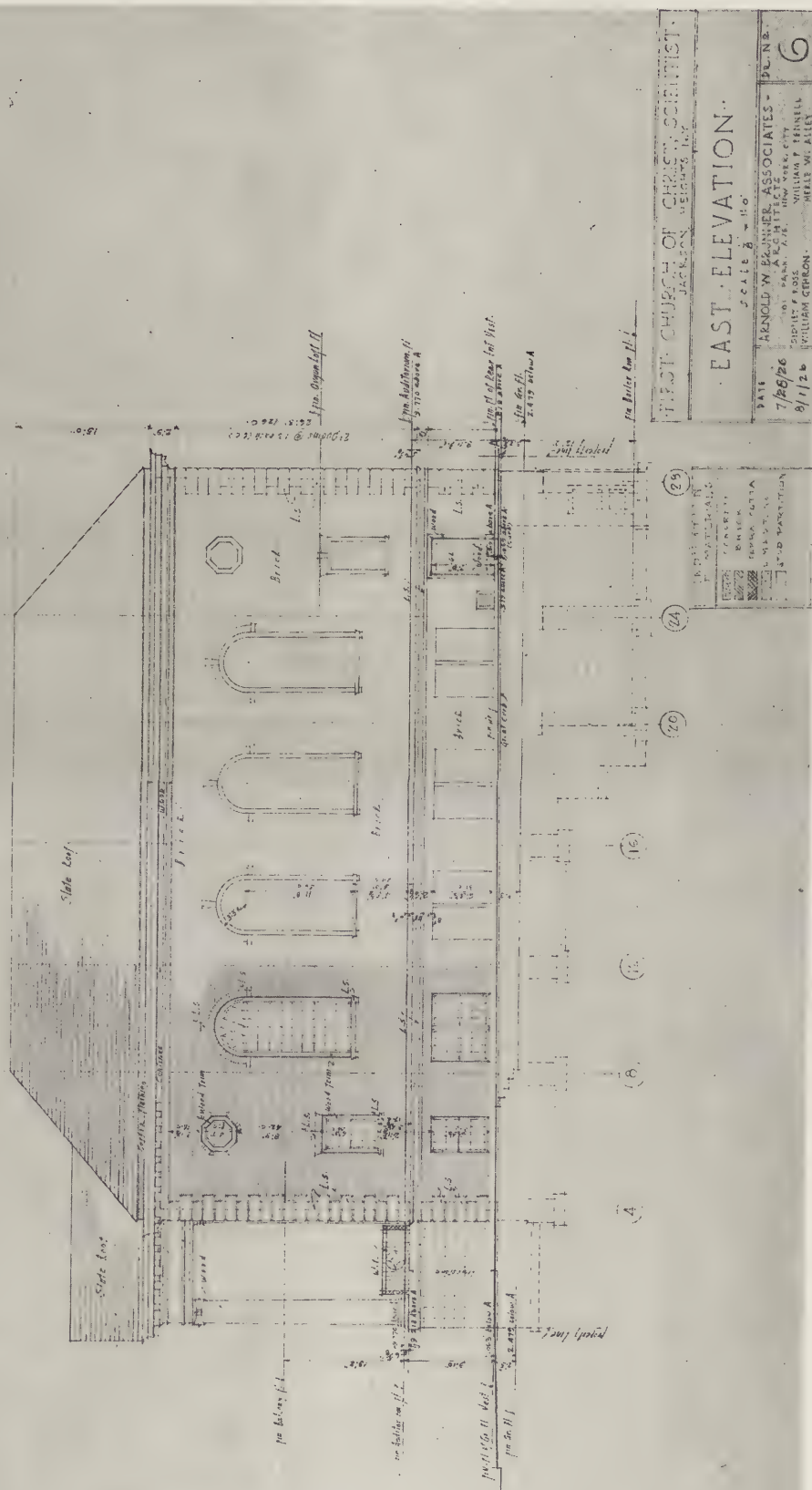


FINAL WORKING DRAWING OF FRONT ELEVATION

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

Arnold W. Brunner Associates, Architects



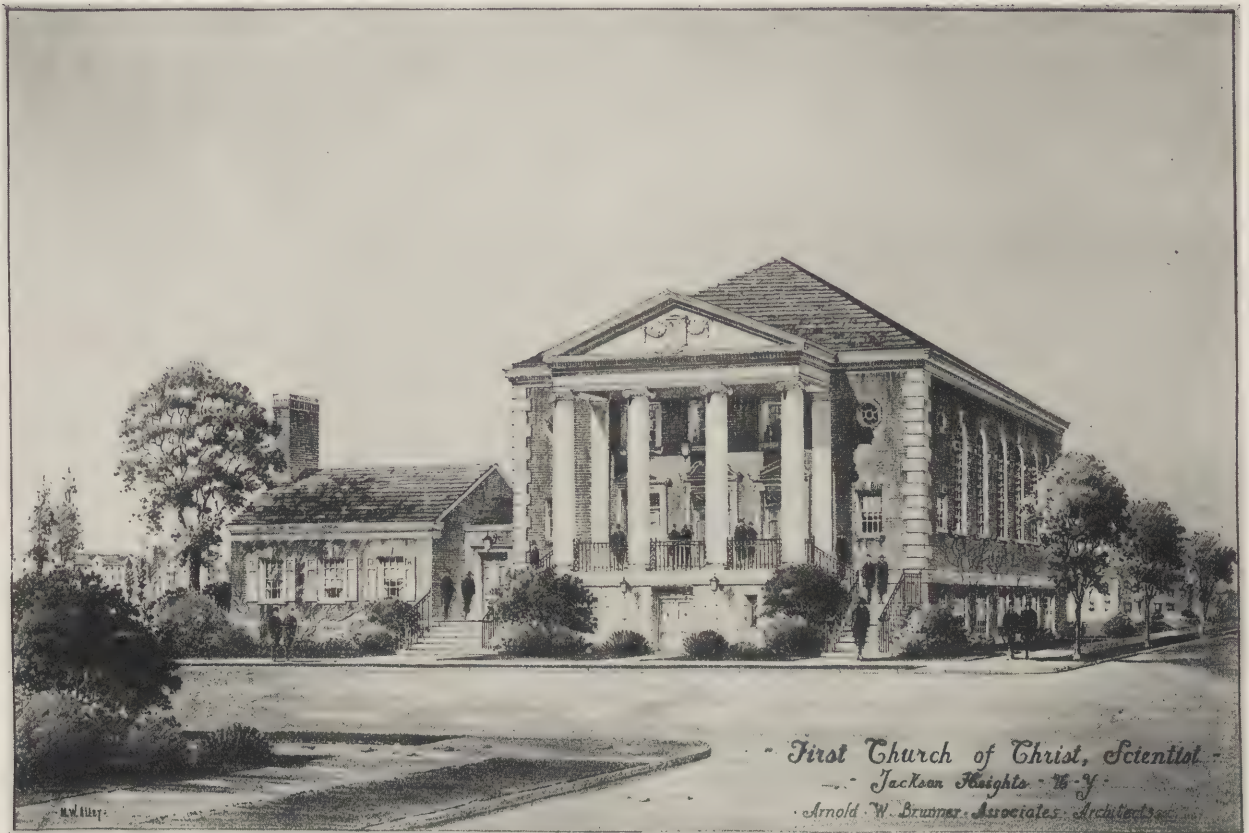


FINAL WORKING DRAWING OF SIDE ELEVATION

FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

Arnold W. Brunner Associates, Architects





PERSPECTIVE STUDY OF INTERMEDIATE STAGE IN DESIGN



SKETCH OF READING ROOM GARDEN

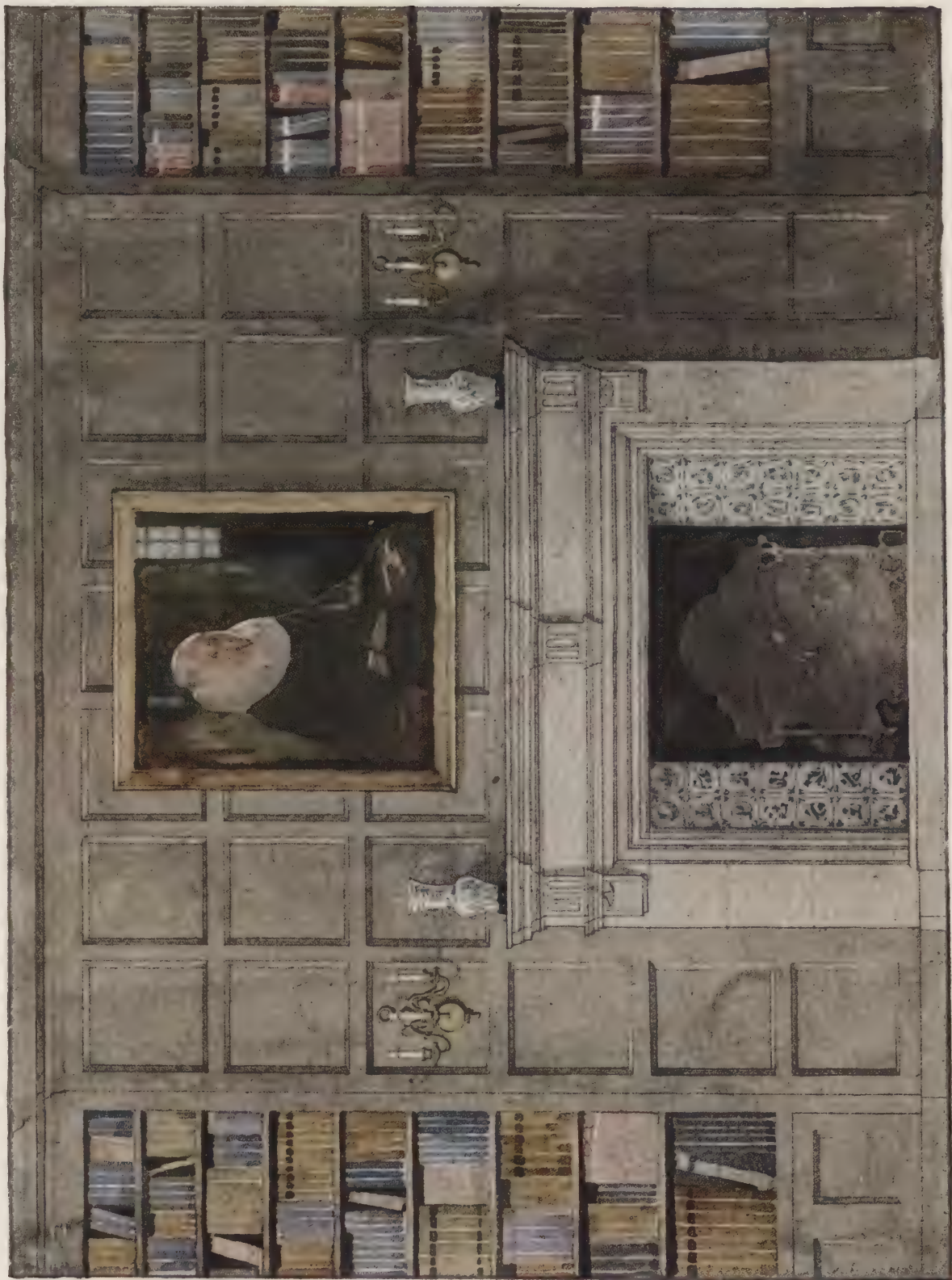
FIRST CHURCH OF CHRIST, SCIENTIST, JACKSON HEIGHTS, N. Y.

Arnold W. Brunner Associates, Architects



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





RENDERING IN WATER COLOR BY A. B. LE BOUTILLIER

*Size of Original, 11¼" x 8½"*

*Sketch of Library Interior*





RENDERING IN PENCIL AND WATER COLOR BY FREDERICK R. WITTON

Size of Original 25" x 15"

Residence at Hingham, Massachusetts

Charles Everett, Architect



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





LITHOGRAPH BY WILLIAM DRAKE



PLATE XXXVIII

VOLUME VII

NUMBER 11

*On the other side of this sheet we have reproduced a lithograph by William Drake. The print, which is of exceeding richness, was made during the last season at the Studio Club of the Architectural League of New York and is one of the best prints of the year made by this group.*





COURT IN CEFALU

*A. Thornton Bishop.*

PENCIL SKETCH BY A. THORNTON BISHOP

PENCIL POINTS



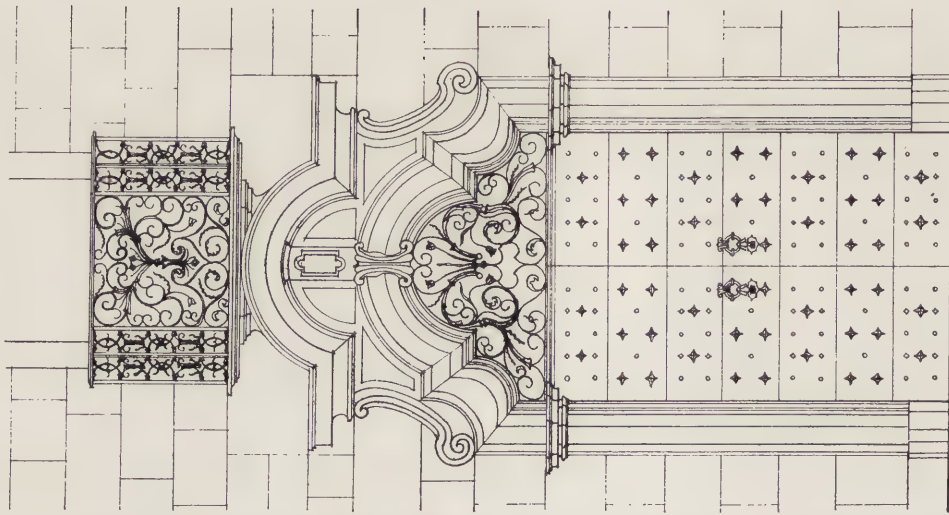
PLATE XXXIX

VOLUME VII

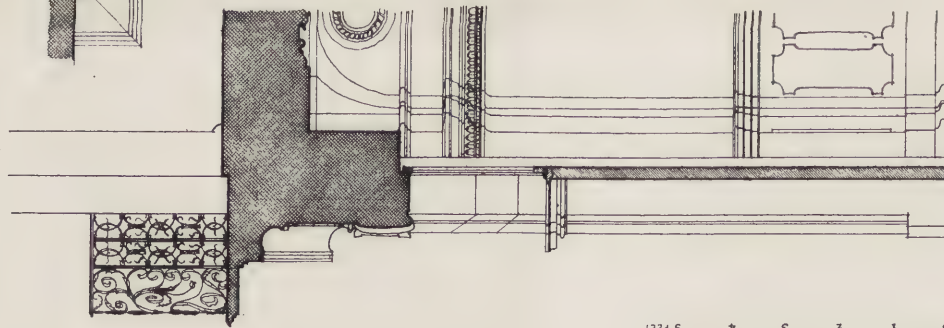
NUMBER 11

*We have reproduced here another pencil sketch by A. Thornton Bishop. The artist's treatment of the scene, which is a Court Yard in Cefalu, Italy, is very direct and free in technique. The original was made on cameo paper with a yellowish tint and measures 6½" x 9¼".*

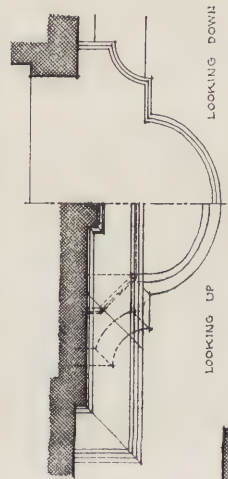




ELEVATION



SECTION

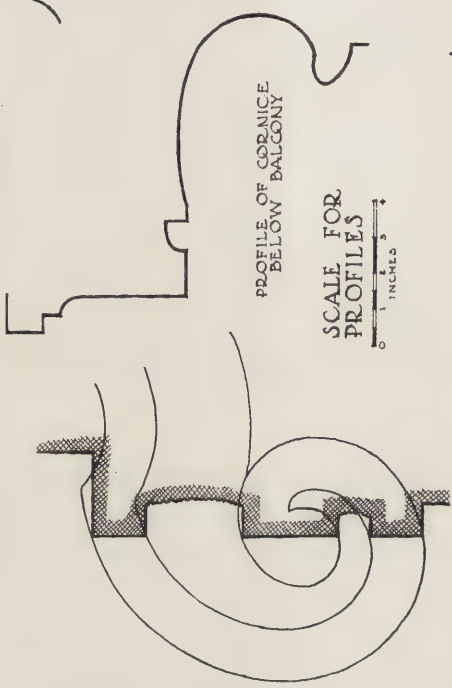


PLAN OF BALCONY

LOOKING UP



PROFILE OF BALCONY PLATFORM



PROFILE OF CORNICE BELOW BALCONY

SCALE FOR PROFILES



PROFILE OF JAMB

PROFILE OF CAPITAL OVER JAMB

# DOORWAY "CASA PERI" LUGANO.

MEASURED AND DRAWN BY PAUL HERMANN

MEASURED DRAWING BY PAUL HERMANN

PENCIL POINTS

LUGANO, JANUARY 1906.



PLATE XL

VOLUME VII

NUMBER 11

*A well arranged sheet of measured drawings of a bit of northern Italian detail is the subject of this plate which was contributed by Paul Hermann, a Chicago draftsman recently come to work in New York after a trip abroad.*





Print by George C. Miller

LITHOGRAPHIC RENDERING BY BIRCH BURDETTE LONG  
CHAPEL AND CLOISTERS, FERNCLEIFF CEMETERY MAUSOLEUM



PLATE XLI

VOLUME VII

NUMBER 11

*On this plate we reproduce a lithograph, by Birch Burdette Long, which was one of a set of six made for the promoters of the Ferncliff Cemetery Mausoleum. The Architects are The Arnold Brunner Associates. The size of the original is  $35\frac{1}{2}$ " x  $23\frac{1}{4}$ ".*





# W H I T T L I N G S

## SECOND ARCHITECTURAL AND ALLIED ARTS EXPOSITION

THE SECOND Architectural and Allied Arts Exposition will be held in the Grand Central Palace, New York, from February 21st to March 5th, under the auspices of the Architectural League of New York. The committee in charge is working very hard to assure carefully selective exhibits and for their harmonious hanging. Mr. Raymond M. Hood is shortly leaving for the continent and will confer with architectural committees in Sweden, France and Germany where the exhibition is already under advisement.

The following committees of the Architectural League are handling the work on the exposition: *President*, Alexander B. Trowbridge; *Committee on Architecture*, Raymond M. Hood, *Chairman*, Frank J. Foster, Julian Clarence Levi, Wm. F. Lamb, Otto Langmann and Frederic C. Hiron; *Committee on Decorative Painting*, Ezra Winter, *Chairman*, Arthur Covey, D. Putnam Brinley, Eugene Savage, J. Scott Williams and Fred Dana Marsh; *Committee on Sculpture*, Chester Beach, *Chairman*, Edmond Amateis, Edward McCarten, A. A. Weinman and John Gregory; *Committee on Landscape Architecture*, A. F. Brinckerhoff, *Chairman*, Armistead Fitzhugh and Robert Ludlow Fowler, Jr.; *Committee on Crafts*, Leon V. Solon, *Chairman*, Ely J. Kahn and Horace Moran; *Committee on Foreign Exhibits*, Charles Butler, *Chairman*, William Adams Delano, Aymar Embury, II, Raymond M. Hood, Ernest Peixotto and Julian Clarence Levi; *Committee on Competition and Awards*, Dwight James Baum, *Chairman*, Edward Field Sanford, and Tabor Sears. Mr. Arthur Covey reports the outlook promising for the mural exhibition as much good work has been accomplished this year in this phase of decorative art.

## ARCHITECTS AND ENGINEERS SQUARE CLUB OF NEW YORK TO MEET

A REGULAR MEETING of the Architects and Engineers Square Club will be held Tuesday, November 23rd, 7:30 P. M., at the Club Rooms, 143 West 44th Street, New York City. For further information address the Secretary, Frederic Sutton, c/o Geo. B. Post & Sons, 101 Park Ave., New York.

## SAN FRANCISCO ARCHITECTURAL CLUB

IT IS TRUE OF organizations as of individuals: they never remain long stationary, and, if they are not making progress, they are surely retrograding. So, the conclusion of the season's work of the Beaux-Arts marks an achievement (a small headway), being the beginning of a greater season, which started September 18. Some thirty members took their first programs (some older students, and others just beginning the course).

The enthusiasm displayed by those enrolling for the engineering class demonstrated the need of the broadening influence of a good engineering course. The class is under the personal supervision of C. Jefferson Sly, civil engineer.

At our last business meeting Mr. Pierre Zucco, a consulting engineer of international reputation, gave a lecture on Aluminous Cement, a product with which he has experimented for the past five years. The lecture proved most interesting.

Our annual Atelier banquet was held Wednesday, September 15, at the Club rooms in honor of our patrons, E. E. Weihe and Edward L. Frick, and our Sous Massier, R. J. Blas. The following day R. J. Blas left for Harvard to enter on the scholarship he won a few months ago.

The dinner and entertainment was a great success and created a fine spirit among the fifty members present. The few "acts" of our entertainment, augmented by the orchestra, started reminiscences of our famous Jinks. A quartet from W. H. Weeke's office was on hand, giving an anvil chorus.

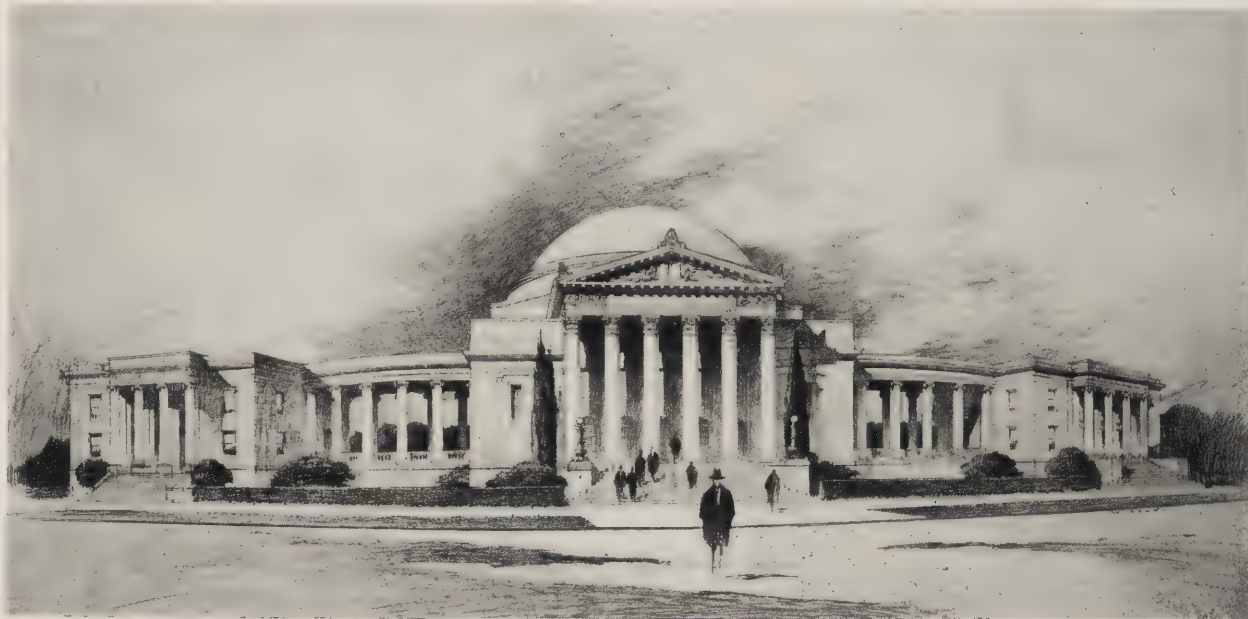
Mr. Austin Whittlesey, a past member, expressed his pleasure in being with us on the occasion.

Between the 16th and 18th of September we held our annual exhibition of the problems of the season, in the Atelier. The exhibit was well attended by the members and it is hoped that next year there will be a greater exhibit, so that we can open it to the public.

The Thursday luncheons are well attended and are proving an enjoyable feature of the club life.

Just now the billiard tournament is under way and the members are signing up for the team.

J. H. DEVITT,  
*Publicity Manager*



WOLFF PENCIL DRAWING BY F. R. WITTON  
*Temple Adath-Israel, Boston. McLaughlin & Burr, Architects.*





FRANK W. FERGUSON

FRANK W. FERGUSON died October 4, 1926. Shortly after the establishing of the firm of Cram and Wentworth in its 8 x 10 room in the Park Square Building in 1889, F. W. Ferguson joined the rudimentary organization as constructing engineer. With Charles H. Alden (now Major Alden and a practicing architect on the Pacific Coast) he so became the beginning of the office personnel. Soon after, Bertram G. Goodhue joined the office force, and later was admitted to the firm, which so became Cram, Wentworth and Goodhue. Charles Wentworth died shortly thereafter, and Ferguson took his place as the practical and business man of the firm.

After thirty-five years of close personal association, and thirty years of formal partnership, it is not easy at once to estimate the character and quality of one who has been removed by death. Time alone can give the sense of full value.

F. W. Ferguson was the solid, enduring and ever-reliable foundation on which the new firm and its work were established. Self-effacing and modest to a degree, he never came prominently before the general public, but through the fair weather and foul of the formative years of the firm, he was constantly present in all the material affairs of the office, and was the directing head of all the building operation. Possessed of indestructible patience, a serene philosophy and an unfailing sense of humor, he invariably bridged every difficulty, and always brought order out of threatened chaos.

No one could have been more devoted, conscientious and reliable than he, and it would be impossible to over-estimate the part he played in the history of the firm. It is doubtful if those who thought of the architectural work of his firm, and because of his self-effacement came so little into personal contact with him, ever appreciated the great part he played in his own inimitable fashion. It was not his function to contribute to the artistic products of the firm, but aesthetics, after all, are only a part of architecture. For nearly a quarter of a century he saw to the material working out of the dreams and visions of his less practical associates, and therefore he played an equal part in whatever his firm produced.

During the last eight or ten years his health had been steadily failing, but his interest and his activity, insofar as his physical condition would permit, continued as acute and vigorous as in the earlier years.

His associates in the firm and in the office, one and all, can only look forward with doubt and sadness to the absence from their lives and work of the qualities of serene judgment, profound philosophy and human and humorous tolerance which were his salient and most endearing characteristics.—R. A. Cram.

#### PRATT ARCHITECTURAL CLUB

AS WE PREDICTED a while ago, our membership list is getting bigger and larger and the Club is betting more robust every day. We now number 80 men. At our last Board meeting we hemmed and hawed and the following is what happened. So we place it before you for your tender criticisms.

#### COMMITTEE ON INFORMATION.

The Board of Governors appointed themselves one complete Committee of Aid. Their names, addresses and occupations are to be listed and posted so that the students of the Architectural Class at Pratt Institute may avail themselves of the opportunity to get in personal touch with any member and seek advice on the particular part of the architectural profession which they (the students) might be interested in making their life's work. The Board includes architects, builders, draftsmen, specification writers, estimators and realtors, so they sure have a list full of variety.

#### THE SEAL.

A Committee was appointed to corral a design for the Club Seal. For this we invite all the designs etc., that you can forward. We suggest that the Graduation Pin be used as a basis for the Seal. Flood us with designs.

#### MEMBERSHIP.

A member from each class was appointed as Chairman of his own Committee to see why all his class is not with us. So watch out for a letter from your Class representative.

#### P.A.C. NEWS BULLETIN.

Whether you are a member or not, advise us of your whereabouts and keep us advised of your latest address and movements; we are interested. Send anything that may prove of general interest. Why? We will publish the P.A.C. News bulletin and it will be sent to all Grads and will contain many items of interest and choice scandal, etc. It will not be a 'Tabloid', we are sorry, for then we would dispense with architecture and be financially set.

#### THE NEW LIBRARY.

The Club is "in back" of a new Library for the Architectural School, we mean *Department*, which is to be for the students' sole use. We have voted to set aside a sum of money so that we can add to this library each year. We want a real library for their own use and we are going to help get it.

#### THE P.A.C. SCHOLARSHIP.

This is also one of our ambitions for the Architectural Students at Pratt. The money is there and the details are being attended to now. We won't send them to Asia but we will help them get their foundation.

#### THE DINNER

Now we come to the important event. It has been decided that we must have a dinner on Friday, Nov. 19th. Note that date and don't forget it even a little bit. Why? So that you will be there with your classmates and have a wonderful time. When? We just advised you, read back a few lines. Where? You will be notified in detail very soon, if we have your correct address. Don't let us rely on our files but postal us the latest address now. It will be some dinner and a success without a doubt (we are not a confirmed optimist). There will be food undoubtedly, a short business meeting, music, and a couple of mighty fine speakers. It is rumored that there will be stories but we cannot confirm this as this goes to press. Here's luck!

So with this we leave you hoping that the censor will see fit to pass all of this letter and also have room for it. Sometimes a magazine has space when we have no news and no space when we do. Best personal regards to all our friends and we trust to see them all Friday, Nov. 19th.

THE COMMITTEE.



COMMITTEE FOR THE RELIEF OF  
OSCAR WENDEROTH

THE NAME, OSCAR WENDEROTH, is no doubt a familiar one to you, as it is to practically every architect, contractor and manufacturer of materials used in construction of buildings. The wide familiarity with the name came either through personal acquaintance, or through government specifications, bulletins, etc., compiled by him while he was Supervising Architect of the United States Treasury Department. Mr. Wenderoth gave many years to the public service, and was officially connected with the construction of many of the most impressive and representative buildings in this country.

Some time ago a very serious affliction befell Mr. Wenderoth, through the total loss of his eyesight. You can appreciate the almost insurmountable handicap this must be to a man accustomed to the broad, intensive, business life in which Mr. Wenderoth was active. Like many of us whose lives are running along without any appreciable interference, he gave little thought to a possible "rainy day," and when this misfortune came, he found himself more or less stranded financially. However, he has done wonders toward fitting himself for work that might prove remunerative. He has taught himself to read and write in Braille, and to operate a Braille writing machine. He has learned to operate, solely by touch, a standard typewriter, and to use the dictaphone. Some months ago he worked out a very interesting form of entertainment for radio broadcasting.

Mr. Wenderoth has laid a good foundation toward fitting himself for renewed usefulness, but, in order to make effective use of ability, he should continue the work of reeducation concurrently with his efforts to find remunerative uses for his skill in writing.

The undersigned believe the efforts Mr. Wenderoth is making to regain a real measure of independence, despite the handicaps under which he is placed, warrant the encouragement of those who know him, or know of the work he accomplished during the years he gave to the federal government in various technical capacities. Hence, we have formed a committee to ask the assistance of individuals interested in architectural and building lines in raising a fund to help Mr. Wenderoth until he has become self-sustaining through the exercise of the activity that has opened up for him. The plan of distributing contributions is to pay Mr. Wenderoth a certain sum monthly until the total fund contributed is exhausted.

The Committee is sure you will welcome the opportunity of participating in the promotion of this fund. Whatever contribution you may make, will be gratefully received.

Kindly mail remittances to H. J. Lucas, Treasurer, c/o The Northwestern Terra Cotta Company, 2525 Clybourn Avenue, Chicago, Ill.

## THE COMMITTEE

- A. H. BURGESS, President, John Williams, Inc.,  
556 W. 27th St., New York City.  
J. E. R. CARPENTER, Architect,  
598 Madison Ave., New York City.  
H. T. FOLSOM, President, Fiske & Co., Inc., Boston, Mass.  
K. F. GILL, John Gill & Sons,  
Bulkley Bldg., Cleveland, Ohio.  
THOMAS HASTINGS, Architect,  
52 Vanderbilt Ave., New York City.  
O. W. KETCHAM, 125 No. 18th St., Philadelphia, Pa.  
CHAS F. KINSMAN, President, Sterling Bronze Co.,  
18 E. 40th St., New York City.  
H. J. LUCAS, Vice-President, The Northwestern Terra  
Cotta Co., 2525 Clybourn Ave., Chicago, Ill.  
ATHOLL McBEAN, President, Gladding, McBean & Co.,  
660 Market St., San Francisco, Cal.  
C. HENRY MEYN, C. H. Meyn, Inc.,  
41 E. 22nd St., New York City.  
W. A. C. SMITH, President, The Ohio Quarries Co.,  
Cleveland, Ohio.

## A CORRECTION

ON THE BACK COVER OF PENCIL POINTS for September we published an advertisement for the Ankyra Manufacturing Company, illustrating the Atlantic Building, Philadelphia, Pa., in which Mr. Cass Gilbert's name appeared as architect. This is a mistake as the building was designed by Mr. Joseph Franklin Kuntz, Architect, of Pittsburgh.

Both the advertisers and ourselves regret this error.



ANDREW C. McKENZIE

ANDREW C. McKENZIE, senior member of the firm of McKenzie, Voorhees and Gmelin, died suddenly at his home, 297 East 18th Street, Brooklyn, New York, after a severe attack of indigestion, on Sunday morning, October 19, 1926. He was born in Dunkirk, New York, in 1861, and was educated in Buffalo.

He came to New York City in 1884, where he became associated with Babb, Cook and Willard. He later was associated with Cyrus L. W. Eidlitz, with whom he became a partner in 1902, at which time they designed the Times Building. Upon the retirement of Mr. Eidlitz in 1910, the present partnership with Stephen F. Voorhees and Paul Gmelin was formed.

While a member of this firm, the West Street Building of the New York Telephone Company, the Telephone Buildings in Albany and Buffalo, the Brooklyn Edison Company Buildings, the Municipal Building of Brooklyn, and many other buildings, were designed and constructed.

Mr. McKenzie was a member of the American Institute of Architects, the Architectural League of New York, the Union League Club, Canadian Club of New York, the Railroad Club, the Briar Hills Country Club, the St. Andrew's Society, and the City Planning and Survey Committee of New York.

## NEW YORK SKETCH CLUB

THE NEW YORK SKETCH CLUB atelier opened its Wednesday class of twenty-five students on the sixth of October with a dinner. Mr. Harvey Wiley Corbett was the guest speaker and gave a very instructive as well as entertaining talk on the advantages of the young architect who had the "picture vision". Many humorous incidents from his experiences as a student in Paris were cited. Mr. Ernest Watson, who is in charge of the instruction, lost no time after the dinner in getting the class under way on its season's work.

Because of the tremendous demand a Friday class was opened which held its opening session and dinner on the evening of the 22nd. Mr. Robert D. Kohn was the speaker.

A waiting list for both classes has been started in the event that business appointments may interfere with the concluding of a student's course. An exhibit of the work of both ateliers will be held in the Art Center Galleries beginning April 25th.

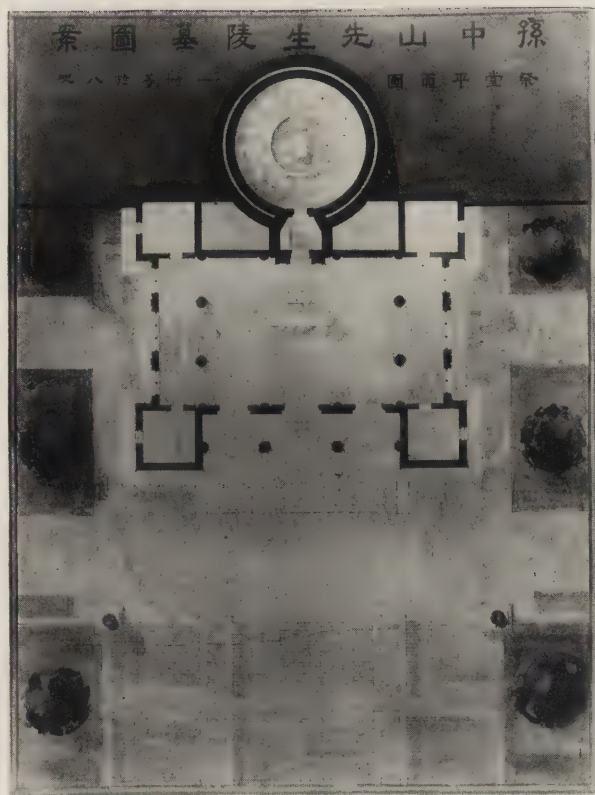




Porte du Roi, St. Michel  
Sept. 17th. 19.

PENCIL DRAWING BY WALTER B. CHAMBERS  
*Porte du Roi, St. Michel*





Plan and Front Elevation of the Winning Design.

# COMPETITION FOR A MEMORIAL HALL AND TOMB FOR DR. SUN YAT-SEN AT NANKING, CHINA.

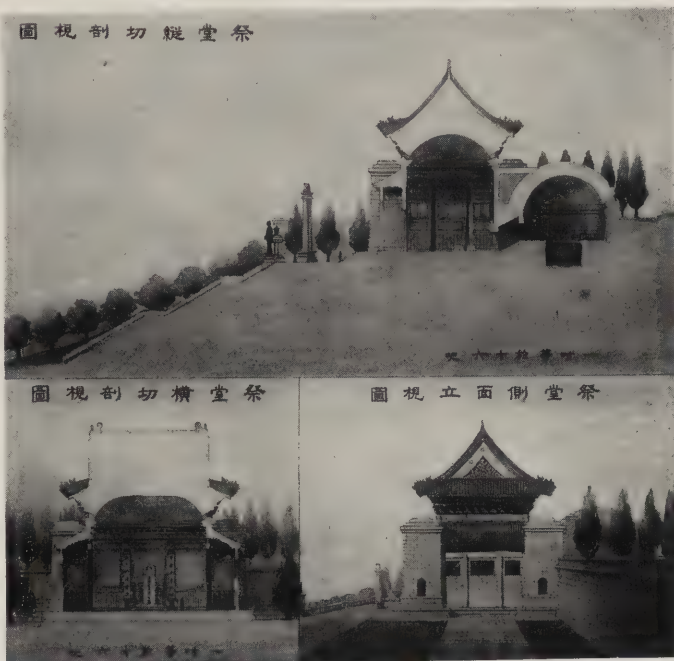
WON BY Y. C. LU, ARCHITECT, SHANGHAI.

The program of this competition called for the combining of a Memorial Hall and Tomb, so planned as to be accessible to each other. On this page are illustrated three of Mr. Y. C. Lu's prize drawings and his brief account of the design.—EDITOR.

THE TOMB FROM THE OUTSIDE looks just like one of its kind to be found in China, but the interior is so arranged that the sarcophagus can be viewed from around a balustrade like that of Grant's Tomb in New York, or Napoleon's Tomb in Paris. The design of the Memorial Hall is an attempt at developing Chinese architecture from wood to stone and concrete, at the same time achieving the distinctive character of a mausoleum. This translation applies to the ornamentation as well as to the principles of construction. The Memorial Hall will serve its purpose as one of its kind in China but is also to house a sitting statue of Dr. Sun Yat-sen, similar to that of the Lincoln Memorial in Washington. Its dimensions are 72' x 92' in plan, and about 80' high to the roof ridge.

The site chosen is most ideal, the mausoleum being placed on a knoll in the middle of the hill in the center of Purple Mountain. This knoll is arranged as a terrace and commands a complete view of the city of Nanking to the southwest and a landscape of great beauty to the south and east. The mausoleum is on the top of a hill and may be seen

from miles away. The approach consists of an immediate stretch of straight paved causeway a mile long and about the same length of winding driveway along the rolling country side before it joins the main road from the city. The adjoining country will eventually be planned out as a national park on a large scale. The method of construction, although modern, can be said to be Chinese in that it consists of a skeleton of reinforced concrete with walls of brick and stone very similar to the Chinese system of posts and beams. The Tomb is in the form of a dome of double shell also of reinforced concrete and faced with granite. In a way it is to be regretted that owing to the restriction of funds and limitation of the time for its completion, this structure can not be built of solid masonry throughout as would be done in the west. In this case it would become an adaptation of western construction to Chinese architecture and would be more desirable from an architectural point of view. The invention of reinforced concrete is so recent that its permanency is still to be proved. In this building



Section of Winning Design.

(Continued on page 691)





LITHOGRAPH BY V. HAGOPIAN  
VANDERBILT HOUSE ON FIFTH AVENUE AT FIFTY-FIRST STREET, NEW YORK



## AMERICAN ACADEMY IN ROME

FROM A LETTER RECENTLY received by C. Grant La Farge, Secretary, from Frank P. Fairbanks, Professor in charge of the School of Fine Arts, we quote the following:

"On the 15th of September the majority of the office staff returned from their holidays. Professor Lamond came about the same time, and on the 16th Director Stevens returned after a two weeks' vacation in the North of Italy.

"The newly-appointed faculty of the Classical School and their families have arrived, and also the three classical Fellows. Richard K. Webel, landscape architect Fellow, has reported in the School of Fine Arts.

"Meyer, senior Fellow in sculpture, has finished his final work—a fountain. The group has a central column surmounted by a kneeling figure of Pan. Three dancing girls surround the column, which presents marble inlaid with mosaic. The figures and one or two other details are to be in bronze.

"Bradford, senior Fellow in painting, and Mueller, first year Fellow in painting, have been traveling together in France. Hancock, first-year Fellow in sculpture, has also been in France, as well as Germany and Belgium. Camden, second-year Fellow in sculpture, has been working on his figure of David; and Fraser, first-year Fellow in architecture, has progressed on his restoration of a terme at Hadrian's Villa.

"Norman T. Newton, Fellow in landscape architecture, completed a description of his study of La Magliana and wrote two other papers on the Chigi and Medici Villas before leaving the Academy early in September. He will sail for New York the fourth of October.

"Finley, second-year Fellow in painting, has begun the painting of a full-sized group, Alcmene and infant Hercules. He has also composed an interesting composition for his third-year problem, an overmantel of seven figures."



PAUL H. HERMANN

PAUL H. HERMANN was born in Zurich, Switzerland, and received his early education there. He later studied architecture at the Polytechnikum in Zurich and upon the completion of his studies in 1920 he came to America. Since he has been in this country Mr. Hermann has been working for various architects, for the most part in Chicago offices. In 1926 Mr. Hermann returned to Europe and made a study trip in France, Spain, Italy and Switzerland.

It was on this trip that Mr. Hermann made a number of very interesting photographs, one of which is reproduced on page 644 of this issue. We have been fortunate in securing more of these beautiful photographs for publication in future issues. Mr. Hermann uses an Ernemann camera of quarter-plate size, equipped with a Zeiss F6.3 lens. He invariably uses a very small stop and a long exposure which necessitates the employment of a tripod. It is to this method that he attributes his successful results. Our reproductions are made from Mr. Hermann's negatives.

## ARCHITECTS TO HELP RED CROSS ROLL CALL

JULIAN PEABODY, OF PEABODY, WILSON AND BROWN, heads as volunteer Roll Call chairman a special architects' group to enlist the maximum response throughout the architectural profession of New York City to the annual Red Cross Roll Call, opening November 11, Armistice Day, for funds to maintain the organization's relief work and public health program.

The architects group is one of the first 100 groups formed in accordance with the campaign plan of committee organization of the city into various industrial, banking, mercantile and professional groups which will carry the Roll Call appeal into every branch of industry. It is anticipated that by the opening of the Roll Call approximately 200 such groups will be functioning throughout the city representing a total of some 4500 volunteer chairmen, committeemen and captains.

Plans for comprehensive activity throughout the group are already in operation under the leadership of Mr. Peabody and he has set as his goal a 100 per cent enrollment with a Red Cross button on every person in the architectural field.

A MEMORIAL HALL AND TOMB  
FOR DR. SUN YAT-SEN AT NANKING

(Continued from Page 689)

an effort is made to protect all reinforced concrete work from the outside and it may be said that it will be the most permanent structure that has ever been built in China.

All materials are selected with a view to their lasting quality. The Hall and the Tomb will be faced with granite from Canton; all other stone work will also be of granite. The roofing tiles as originally proposed are to be of bronze, but as this was thought too extravagant for the present, glazed tiles will be employed instead. The interior finish will be in granite, marble and artificial stone. The ornamental parts in ceiling and beams will be done in mosaic, no painting being used anywhere. Windows and doors are all made of metal.

In the design of this work the aim has been to develop Chinese architecture according to the principles of aesthetics and it is neither the adapting of Chinese forms to modern construction nor vice versa. An original composition is striven for but always with a feeling for and in the spirit of Chinese ideals gathered through the study of the best existing examples.

## IRON AND BRONZE MANUFACTURERS MEET

THE NATIONAL ASSOCIATION OF ORNAMENTAL IRON AND BRONZE MANUFACTURERS held its nineteenth annual meeting in the Pennsylvania Hotel, New York, from October 5th to 8th inclusive. Among other speakers before the convention were Mr. Jules Bouy, decorator, and Mr. Harvey Wiley Corbett, architect.

Mr. Bouy gave an inspiring talk on "Modern Iron Work," which was very enthusiastically received. Mr. Corbett spoke at some length on "Ornamental Iron and Bronze in Modern Architecture," discussing the subject in various phases. He made a strong appeal to the manufacturers for frankness and honesty in the expression of materials and for the adoption of sound design in the making of standardized ornamental elements. He urged close co-operation between the manufacturers and architects, both of whom, he said, were involved in the production of modern architecture.



## PERSONALS

HAVILAND W. ALLEN, ARCHITECT, has removed his offices to 402 Dwight Building, Jackson, Michigan.

WILLIAM J. LODGE, ARCHITECT, has opened an office for the practice of architecture in the Westfield Building, 66-68 Elm Street, Westfield, N. J.

WOLDEMAR H. RITTER, ARCHITECT, has removed his offices to 1588 Beacon Street, Brookline, Mass.

JOHN J. WATSON, INC., LANDSCAPE ARCHITECT, Town Planner, Consulting and Development Engineers, have removed their main offices to The Watson Building, 5103 Euclid Avenue, Cleveland, Ohio.

THEODORE L. PERRIER, ARCHITECT, has removed his offices to 905 Canal-Commercial Building, New Orleans, La.

ANDREW J. THOMAS, ARCHITECT, has removed his offices to 2 West 46th Street, New York City, N. Y.

ALFRED W. BOYLEN, ARCHITECT, has removed his offices to 30 Whitney Avenue, New Haven, Conn.

KAVY & KAVOVITT, ARCHITECTS, have opened offices for the practice of architecture in the Municipal Bank Building, Stone & Pitkin Avenues, Brooklyn, N. Y.

EDWARD A. POYNTON, ARCHITECT, has removed his offices to 1523-L Street, N. W., Washington, D. C.

IRVING R. BROWN, ARCHITECT, has opened an office and studio at 20 Beaver Street, Newark, N. J.

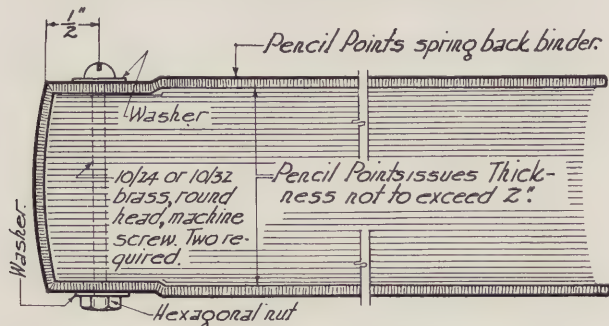
ARTHUR R. HUTCHASON, ARCHITECT, has opened a branch office at 102 De la Guerra Studios, Santa Barbara, Calif., with Mr. Arthur Raitt in charge.

SHERMAN & WOLFENBARGER, ARCHITECTS, have opened a new office at 303A Poyntz Ave., Manhattan, Kansas.

## HOUSE BEAUTIFUL COVER COMPETITION

THE HOUSE BEAUTIFUL COVER COMPETITION has been an annual event now for the past four years. The announcement of the fifth competition offers, in addition to the First Prize of \$500, four special prizes of \$250 each, and six honorable mention awards. The Student Certificate of Merit (with honorarium), offered for the first time last year, is continued this year for the best design submitted by a student in any school of art. The exhibition of one hundred or more of the best designs, which has been a feature of the competition since the beginning, will be further extended this year, and covers will be shown in all the important cities from coast to coast. The competition closes January 14, 1927. Full particulars regarding it may be obtained from the Competition Committee, House Beautiful, 8 Arlington Street, Boston, Mass.

• A • PRACTICAL • METHOD • OF • ADAPTING •  
• THE • PENCIL • POINTS • SPRING • BACK •  
• BINDER • INTO • A • PERMANENT • BINDER •



• END • VIEW • OF • BINDER • SHOWING • MACHINE • SCREW •

Place issues of Pencil Points in binder and line them up as straight as possible. Drill two holes, one  $\frac{1}{2}$ " from the top,  $\frac{1}{2}$ " back from binder back and the other  $\frac{1}{2}$ " from the bottom,  $\frac{1}{2}$ " back from binder back. Insert machine screw (length of screw dependent upon thickness of book) with washer under head. Screw on nut having first put on a washer between nut & book. Draw nut up tight. If part of screw extends beyond nut, cut it off and file smooth. Complete operation will take about  $\frac{1}{2}$  hour. p.g.k.



PEN-AND-INK SKETCH BY J. MACGILCHRIST

ATELIERS AND CLUBS AFFILIATED WITH  
THE BEAUX-ARTS INSTITUTE OF DESIGN

*We have had so many requests for clubs and ateliers following the Program of the Beaux-Arts Institute of Design that we are printing this list, which we believe will be of value to students throughout the country.*

- ALABAMA, Birmingham—Birmingham Society of Architects, 1607-11 Empire Building.
- CALIFORNIA, Los Angeles—Los Angeles Architectural Club, 420 South Spring Street.
- San Francisco—San Francisco Architectural Club, 523 Pine Street.
- COLORADO, Denver—Denver Atelier, 1459 Pennsylvania Avenue.
- DISTRICT OF COLUMBIA, Washington—Washington Architectural Club, address T. J. Rowland, c/o Arthur B. Heaton, 1211 Connecticut Avenue.
- FLORIDA, Miami—Miami Architectural Club, 39 S. E. 6th Street.
- ILLINOIS, Chicago—Atelier Parsons, Chicago Architectural Club, 1801 South Prairie Avenue.
- INDIANA, Indianapolis—Indianapolis Architectural Club, Oral E. Williamson, 314 Pennyway Building.
- LOUISIANA, New Orleans—New Orleans Arts and Crafts Club—Atelier Feitel, 917-918 Carondelet Building.
- MARYLAND, Baltimore—Charcoal Club, 1230 Saint Paul Street.
- MASSACHUSETTS, Boston—Boston Architectural Club, 16 Somerset Street.
- MICHIGAN, Ann Arbor—Arbor Atelier, 340 Nickels Arcade
- Detroit—Thumb Tack Club, 324 McKerchey Building; Atelier Derrick, 120 Madison Avenue.
- MISSOURI, Kansas City—Architectural League of Kansas City, 1004 O'Rear Leslie Building.
- NEW JERSEY, Palisade—Sibley-Licht Atelier, Edgewood Lane and Bluff Road.
- Trenton—French Curve Atelier, 219 East Hanover Street.
- NEW YORK, Buffalo—Rectagon of Buffalo, Atelier, 77 West Eagle Street.
- New York—Atelier Corbett-Koyl, 314 East 49th Street; Atelier Hiron, 342 East 41st Street; Atelier Licht, 126 East 38th Street.
- PENNSYLVANIA, Philadelphia—"T" Square Club, 204 South Quince Street.
- Pittsburgh—Pittsburgh Architectural Club, Chamber of Commerce Building.
- Reading—Reading Architectural Society, 136 Robeson Street.
- TENNESSEE, Knoxville—Barber-McMurry, Atelier, c/o Barber & McMurry, Architects.
- Memphis—Atelier Cairns, 528 Madison Avenue Building.
- TEXAS, Fort Worth—Atelier Staats-Koeppel, First National Bank Building.
- VIRGINIA, Norfolk—Atelier Norfolk, J. W. Phillips, c/o B. F. Mitchell, Architect.
- Richmond—Richmond Architectural Club, 914 Travelers' Building.
- WASHINGTON, Seattle—Seattle Architectural Club, 232 Henry Building.
- CANADA—Atelier Beaux Arts, 628 St. Urban St., Montreal, Canada.





PENCIL RENDERING BY J. MACGILCHRIST

*Suburban House, Charles M. Hart and W. Lynn Patton, Architects.*

## ARCHITECTURAL LEAGUE OF NEW YORK

ONE OF THE MOST STIMULATING and amusing evenings ever held at the Architectural League occurred October fourteenth. A somewhat indefinite announcement stated: "There will be 'An exhibition of Modern Art by Alfred Maurer.' Mumford and others will speak." As has often happened, those members who preferred to snuggle beside their fireplaces or radiators, rather than take a chance on a vaguely announced program, missed a good thing. Perhaps interest in modern art was not keen enough to bring out a record-breaking crowd, but the audience of about seventy had the time of their lives.

On the walls were water colors, chiefly still life groups of flowers, painted by Alfred Maurer, one of the first Americans to be lured from conservatism by the French leaders, Cezanne, Matisse, and Picasso. The paintings were loaned by Mr. Weyhe, proprietor of the Book and Print Shop on Lexington Avenue above 59th Street. The leading characters in the drama or comedy which followed dinner were Lewis Mumford, author of "Sticks and Stones", Dr. Walter Pach, who wrote "Masters of Modern Art", Mr. Zigrosser, Mr. Weyhe's right-hand assistant, and about a dozen architects, painters and sculptors, members of the League.

Mr. Mumford led and ended the discussion. He is a brilliant, fearless defender of the new art. Never have architects been hammered so unmercifully as they were by this, to them, new champion of the modern movement. They were vigorously assailed for their inability or unwillingness to accept or initiate new, fresh forms in their work. The speaker slashed them with scornful references to copying antique architecture which, in his opinion, was still going on in the same stupid way in which it had always been going—he did not stipulate for how long. The audience did not know whether to resent the attack or to laugh. Mr. Pach followed in a calmer, more judicial mood, telling why he had ardently admired this new effort to escape from dominating precedent. Mr. Zigrosser spoke briefly, from the angle of the man who has such paintings to sell. Here and there, from the unsympathetic audience, was heard a partially submerged "ouch" or an expletive somewhat stronger.

The visitors, however, were not allowed to have things all their own way. One after another of the listeners hit back and, because of the frankness of the attack, the other side felt free to reply with equal freedom and vigor. The

paintings were termed caricatures on art, horrors, and other even more picturesque titles. In the midst of it all, Mr. Maurer sat smiling broadly at each thrust. The irrepressible and irresistible Lentelli, whose sculpture had received a tremendous knock by Mr. Mumford, came forward toward the end of the evening and delivered an oration which, for coherency of argument and picturesque gestures, could not easily be equalled. Those who have listened to Lentelli when he is roused, will understand what a good time the audience had.

Mr. Mumford, in his closing statement, said, "I came here tonight expecting to shock you, but I find that the tables are turned and it is I who am shocked, to find you unresponsive to the appeal of this new art expression, and unable to appreciate it". There was no referee and no decision was announced. No knock-out was scored by either side, though there were some powerful hits straight from the shoulder, which jolted.

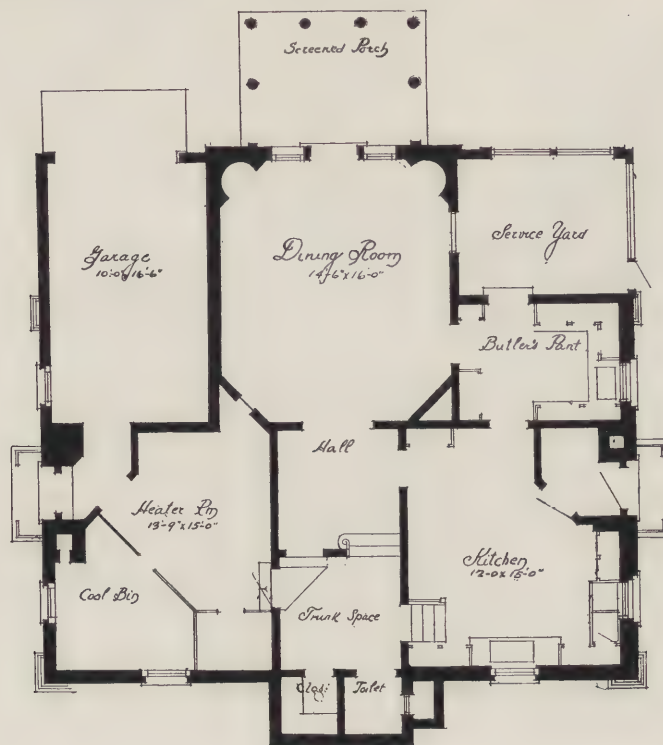
What can be the outcome of such a meeting? It is probable that direct results may never be traced to it, yet one may conclude that Mr. Mumford, by his daring attack must have started some listeners toward a more liberal attitude in their reception of new forms of art. One of the audience summarized it well in saying, "I confess that I like these pictures better now than when I came into the room, and I am conscious of a fear that I may grow to really like them in time".

In contrast to this program, was that of October 21st, when Henri Courtais showed an interested audience how to make flower silhouettes and paper batiks. At meetings of this type, the audience looks on at first, with absorbed interest, but with diffidence in the matter of active participation. By ten o'clock, there are not enough brushes and other supplies to go around. Every man who could worm his way to a table edge was trying his hand at both types of decorative painting. Paper batiks are made in a process similar to the fabrication of cloth batiks, except that, in the paper product, gasoline does not have to be used for the removal of wax. An electric flat iron and a newspaper used as a blotter were sufficient for the purpose.

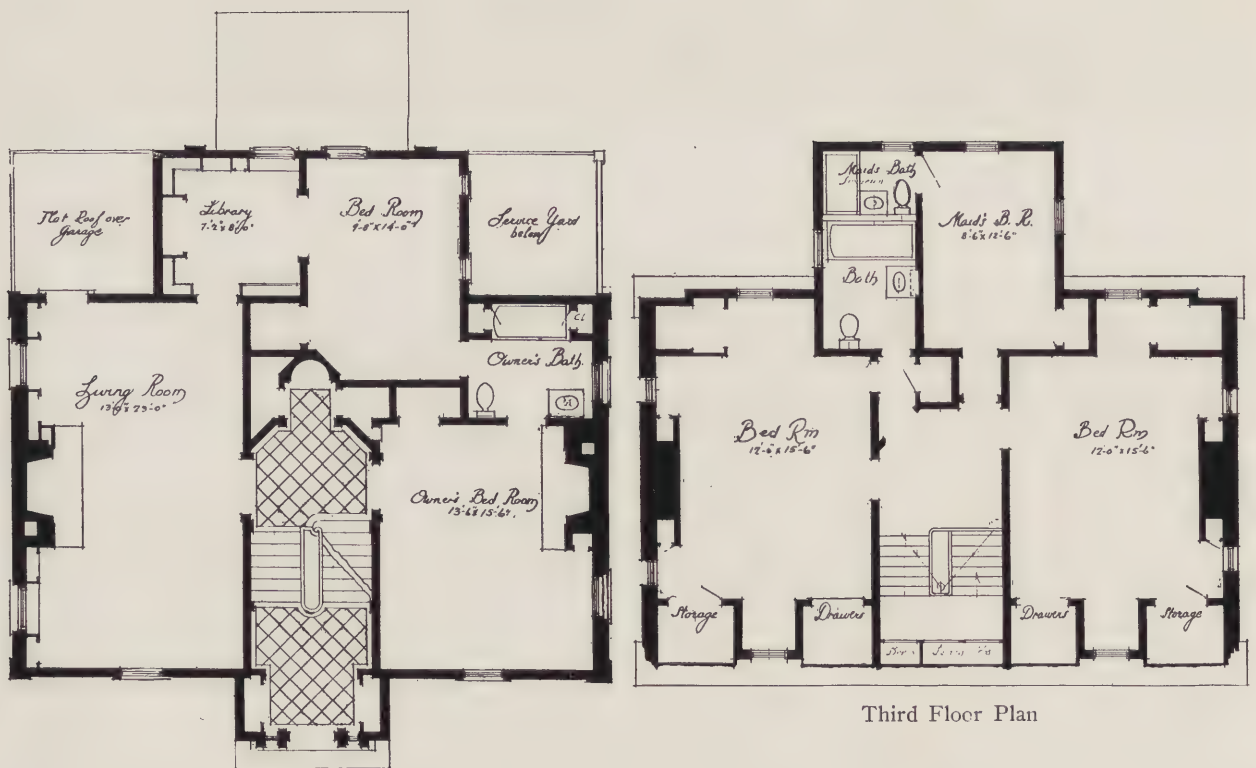
Programs already tentatively planned for fall meetings include tie dyeing; a talk by Charles R. Knight of the American Museum of Natural History on Prehistoric Animals; a ladies' evening, when fencing bouts will be featured, and another ladies' evening, when the League members who are particularly interested in dramatics will put on a play of their own composition.



# PENCIL POINTS



First Floor Plan



Entrance Floor Plan

Third Floor Plan

HOUSE FOR MRS. ANNAH W. EVERETT AT HINGHAM, MASS.

Charles Everett, Architect

(A perspective rendering of this house is one of the color plates in this issue.)



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

How DOES EVERYBODY LIKE THIS department, and what can we do to make it more interesting, more amusing and more helpful to the PENCIL POINTS' Family?

We have been chugging along for quite a while now getting a nice selection of sketches each month, a few amusing cartoons, some bookplates and various other items, and an occasional bit of verse. The poetizers seem to have gone on a strike lately, or something, as not even so much as a limerick has tripped across our threshold for more than two months. And the ten dollar bills have gone begging—a sad state of affairs when you come to think about it!

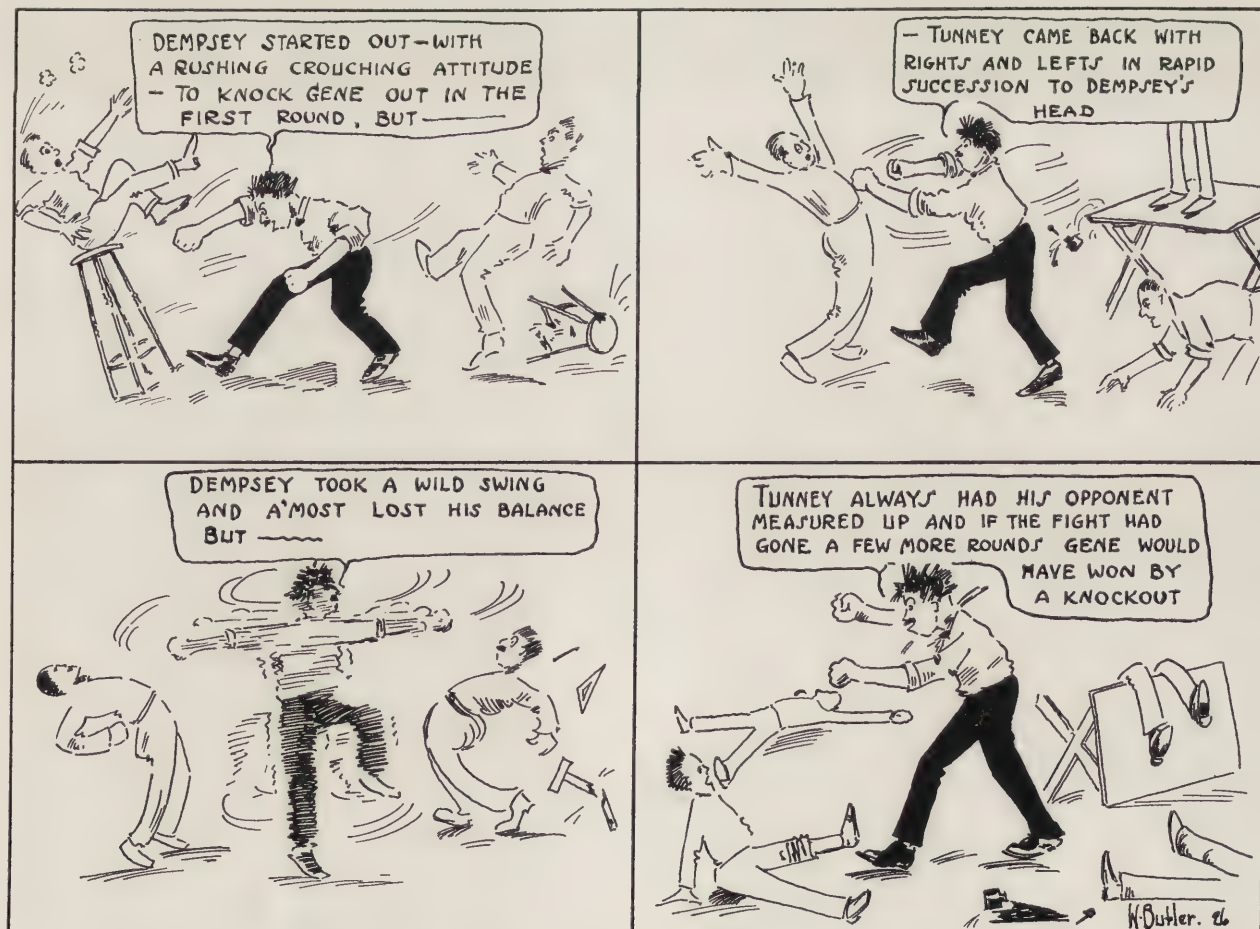
The readers of this magazine (insofar as they have expressed themselves) seem to be divided into two groups of about equal numbers. One group says the HERE AND THERE department is "great stuff, long may it flourish." Representatives of the opposition tell us in good faith and with perfect frankness that what we are doing here is trivial and lacking elements of real value, and that the space might be better used for measured drawings, details of construction or what-have-you.

Now we are here to please the folks and let's have a rising vote. Is this a good department or isn't it? Can it be made better, and if so, how? Should it be abandoned, and if so, why?

Without the slightest desire to influence anyone in his reply here is the way we look at the matter. We think the idea of this department is a good one (it is our own

idea). Lots of things happen in the offices which this Journal has the honor of serving that we never hear about, and have no way of hearing about unless our readers put something down on a piece of paper and send it to us. All manner of little happenings, both architectural and purely human, take place which would be of general interest if published. Let each reader of this department serve as an active reporter and transmit to us all manner of items which might to advantage be passed along to the whole family. Someone has a bright idea about some phase of drafting-room work which saves time or gives a better result. Send it along and let's pass it on. Or someone spins an amusing yarn. If it tickles your ribs maybe it will do the same to the other fellows'.

But even in spite of everything we keep on growing. An edition of 18,000 copies will soon be required to take care of the subscription list, which is a source of tremendous gratification to all of us who have been doing our darndest for nearly seven years to serve those who are interested in draftsmanship, whether they be architects, draftsmen, or students of architecture. When we see something we believe to be good we try it, but in fairness to our subscribers we cannot afford to use a single page unwisely. So tell us what you think about this department. An *additional* prize of ten dollars will be offered for the best letter on this subject received by December first, whether the communication be for or against it.



"THE GUY WHO HAD BEEN TO SEE THE BIG FIGHT TELLS US ABOUT IT," CARTOON BY WILFORD BUTLER



PENCIL POINTS



SKETCH BY GEO. A. WHITLEY, BOMBAY, INDIA



SKETCH BY GEORGE SPINTI, MILWAUKEE, WIS.



MEASURED DETAIL BY KENNETH C. BLACK  
Jamb Detail, Portal of St. Benoit, XVI Century



SKETCH BY E. M. SCHIWETZ  
(PRIZE—Class One—October Competition)





WATER COLOR BY HERBERT GALLIE  
*Sacred Heart Church of Tampa, Fla.*



SKETCH BY JOSEPH MCCOY  
*House at New Rochelle, N. Y.*



SKETCH BY GEORGE SPINTI  
*Watchman's Tower, Mont St. Michel*



PENCIL SKETCH BY H. D. THEO  
*"Old Church"*



## COPIES OF PENCIL POINTS

WANTED AND FOR SALE

Charles E. Croom, 1851 Bellevue Avenue, Syracuse, N. Y., wants January, February, March and April, 1925.

F. G. Gregory, 423, N. Z. Insurance Bldgs., Queen Street, Auckland, New Zealand, wants January, 1926, for which he will pay 75c.

Eric Mildner, Shelton Hotel, Lexington Ave. and 48th Street, New York, wants April, 1923, and August, 1924.

T. J. Skinner, Architect, Bessemer, Ala., will pay \$1.00 for a copy of March 1922.

Lester H. Woolsey, c/o Lansing & Woolsey, 8 Jackson Place, Washington, D. C., wants a copy of January, 1926.

The Cambridge School of Domestic Architecture & Landscape Architecture, 13 Boylston St., Cambridge, Mass., wants July, August, and October 1922; October 1924; and May and June 1925.

W. Walden Fountain, 216 Elmwood Ave., Irvington, N. J., wants June, July, August, November, 1920; January and February, 1921. Also the following issues of the White Pine Series for which he would be willing to pay a fair price: Vol. 1, No. 3; Vol. 2, No. 4; Vol. 3, No. 2; Vol. 5, No.'s 5 and 6.

The Clemson Agricultural College, Clemson College, South Carolina, Rudolph E. Lee, Professor of Architecture, will sell at 25c. each, 1921, April, June, July, October; 1922, April, August, September, November, December; 1925, July, August, September; 1926, February, May, July, August.

Chas. A. Rais, 42 King Street, Westfield, Mass., will sell October 1923; February, March, April, May, June, July, August, and 2 copies of September 1924, and February, March, April, May and June, 1925.

Frank Navratil, Jr., c/o Lindl & Schutte, Inc., 82 Wisconsin St., Milwaukee, Wis., has June and November 1920; April, May, June, July and August 1921, which he will sell for 50c. each.

Angelo B. M. Corrubia, Architect, 1373-75 Arcade Bldg., St. Louis, Mo., has December and June 1920, either of which he will exchange for a copy of November 1924.

Bernard Marcus, Room 2100 Municipal Building, New York City, wants January, March, April, May, July and September 1926.



BOOKPLATE BY CHARLES A. DEWEY

(PRIZE—Class Four—October Competition)

The Clemson Agricultural College, Clemson College, South Carolina, Rudolph E. Lee, Professor of Architecture, wants 1920 complete; 1921 January; 1922 February; 1923, April, August, December; 1924, January, May, June, October; 1925, April, May; 1926, January.



"THE MEASURING EXPEDITION", BY THOMAS MITCHELL, BARNHILL, BROUGHTY FERRY, SCOTLAND  
(PRIZE—Class Three—October Competition)



# THE LETTERS OF LISTERENUS TO ANTIACID

THE VALUABLE CORRESPONDENCE OF A ROMAN DRAFTSMAN TO HIS ATHENIAN FRIEND

Found and Translated from the Latin by Professor H. E. Knozall, M.Arch., Sc.D., Ph.D.

## EPISTULA I.

Phillippe Antiacid  
c/o Ulysses Kolinus  
Architect.  
83 East Acropolis Blvd.  
Athens.

July 12th<sup>1</sup>  
171 Via Appia,  
Roma.

DEAR TIA:<sup>2</sup>

Salutations, greetings and *comment savoir*, as Yvonne would say, or perhaps you would prefer that I use the more comprehensible Roman vernacular of the streets saying simply, "Hey!"<sup>3</sup>

Yes, I may as well tell you at once, O, Tia, that again *je suis en esclavage*, but this time to a *aux yeux Venus Gauloise* by the sublime name of Yvonne. Pretty and unique, is it not? She has the cutest little figure *et les graces des barbares et patois incommutable*. I will tell you more of her sometime, provided you promise to keep your head and remain in Athens. I merely mention *en passant*, *ma dernière conquête* so that you will understand why my letters are now so full of strange and barbaric phrases. I, for your culture, pass on to you *sa patois et expressions elections et naïves*. Live and learn.

I trust, Old Timer, that Kolinus has not been loafing on the job and that you have ample to do and are not giving light weights in the matter of lines and hours. Keep cool and refrain from overworking your young self during the heat these days and above all, do not let the Hellenic Goddesses turn your poetic head towards their shrines. I am told one look is fatal. As for me, I go twice daily to the Baths, to avoid the *coup de soleil*, to soothe my smarting eyes with visions of beauties at their bath (I will trust only you with this *sub rosa*) and to escape full sizing the Odd Fellows Building which we are erecting on the Corso.<sup>4</sup> This thing of full sizing on a one meter board is no joke and besides, it is quite an item of expense as each time I soil my white ox-weave tunic and must have it laundered or else I shall be mistaken for one of the vulgar rabble and crowded into the gutter by the nobility.

Scagliola and Screeds<sup>5</sup> were low and accepted bidders at 185,760 denarii. Someone surely must have made a bull though for the next bid was 247,680 denarii. Detectio will be resident inspector for us, so they won't be able to get by with shoddy work, errors and omissions if I know anything at all about Detectio. I fear they are as good as on the rocks now, buying this job. I shall write more about it later. It really is not so bad even though small and insignificant. Of course Gurguylio claims to have designed it in toto. If only one fourth his claims were true, he would be famous by now, what?

Boy, Rome has surely built up since you left. We're some village now and our new office building dwarfs everything in sight. We moved in last Wednesday in the Ionic Bank Building. Of course, Ego, and those he claims as partners, had to select for their private offices (but if the

truth were told they are really only lounging rooms) all the rooms facing north, so as to interview their clients by and the better by which to interview their clients' wives and daughters. Then too, of course, all artists worthy of the name must have the northern light to be in fashion, while we poor devils who do all the thinking and work must sweat blood under the torrid rays of the sun in decline. I sometimes seriously wonder if any architect was, or is, really human and related to the rest of us men, and if, by any oversight, any drafting room ever faces north. This is really a serious subject for profound thought.

Our building, as I suppose you have already heard from itinerant draftsmen or the rustics who are holders of the Prix de Rome,<sup>6</sup> *en voyageant*, is some Colossus. The

Bosses are all swelled up with their seeming success at having designed and erected the tallest building yet *sui generis*, but personally, when Thor begins throwing his battle axes around the skies I tremble for fear lest Old Metrico, our fossilized engineer, being *ferae naturae*, might have had one too many cups of nectar while figuring the footings. At such times I make my peace with<sup>7</sup> *Esto Perpetua*, our newly made Goddess of Giant structures, and I trust she will ever smile on us. So far, she has and to-day our building majestically stands in *nubibus*, and I might almost say, *in vacuo*. We are located at the intersection of Tiber and Appia, in the heart of the business section and near enough to the Circus Maximus for us to enjoy the games gratis from our office windows, on festival days. This mitigates slightly the wrath of Old Sol.

<sup>8</sup> As the name implies, our building is in true Ionic proportion, that is, it is if built as drawn, which is most unlikely. However, that may be, Gurguylio and Ego having no prototype to crib, used an Ionic column, minus its entasis,<sup>9</sup> to proportion by. Now that the Emperor,

in his ignorance, proclaims it a success and has awarded a medal of Britannic tin<sup>10</sup> to the firm of Tisticle and Pompus, who had no fingers in it, they are busy receiving the applause and bowing and scraping at all public gatherings. But the truth is, while Ego and Gurguylio are cussing and watching us sweat higgins, the lordly Tisticle spends all his time driving his latest model chariot and foursome about the streets and hillsides and fat old Pompus works harder than ever before in all his life, at the impossible—a hole in one. And the funny part of it is that he really believes for him it is possible.<sup>11</sup>

But to come back to my subject. I, personally, think the main façade on Via Appia too slender and delicate.<sup>12</sup> Instead of telling you what floor we are on, or the height from grade line to cornice, out to out, I will give you a little problem and let you display your ingenuity, and ready wit and put into use your trusty slide-stick.<sup>13</sup> No doubt you will easily arrive at its true proportions besides finding it a good substitute for those cross-word puzzles you have been writing me about that are now the *dernier cri* in Athens.<sup>14</sup>

The Ionic proportion, of course, only holds good on the



RESTORATION OF IONIC BANK BUILDING, ROME, AS SKETCHED FOR PENCIL POINTS BY PROF. H. E. KNOZALL

(Note the two statues on the roof ridge to the Goddesses *Esto Perpetua* and *In Equilibrio*.)



narrow and main façade fronting on Appia. The area of this façade, *in toto*, is for all practical purposes 326 centiares or 3,820 pes quadratus,<sup>15</sup> whichever you prefer. Our office floor level is about 10.9 meters below the top of the main cornice, this cornice being approximately 8.3 pes, or 2.44 meters in height over all.

Now, Old Thing, sharpen your pencils and lets have your answer. If you come within ten pes of the total height I will buy you a dope on your next week-end trip here.<sup>16</sup>

When Thor<sup>17</sup> is pacified, and permits it, we travel up to our offices by means of a new contrivance or engine, based I suspect on the Emperor's famous *levers militaires*. It is called, for want of a better name, a Rise and Decline, and was designed especially for this building of ours by a *rara avis* named Otisii. I assure you it is a queer feeling rising, but even more so declining. One for a moment, feels as though a fox had suddenly disemboweled one, but it does save a mountainous climb by way of the *escaliers*.<sup>18</sup> *In limine*, we pray to the Goddess of this rising device,

another new Goddess by the way. (It's terrible on a poor draftsman having so many Gods and Goddesses to appease and on such niggardly salaries, too.) *In Equilibrio* by name,<sup>19</sup> to take us up *in nubibus* and bring us down again safely, to *terra firma*. Come over some week-end, soon, and ride with us. I assure you that you will get a kick out of it that will make the sock of the proverbial army mule seem like a *percer d'amour*.<sup>20</sup>

Well Tia, enough is a sufficiency, and as Old Scourgeous, our *Abacus*<sup>21</sup> or *sous chef dessinateur*, is glancing this was menacingly, I really believe the old hypocrite suspects me of soldiering during office hours.

Drop me a line soon and pass on to me the latest wise-cracks<sup>22</sup> you've heard dropped by the Athenian dandies and side-walk wits. They seem to be a pretty clever bunch. Have you much work on the boards at present? We are doing overtime, minus the extra compensation we are due, as usual.

Till next time, your fellow slave,  
LISTERENUS

## EXPLANATORY NOTES BY PROF. H. E. KNOZALL.

- 1—The first thing worthy of note in this first letter of Listerenus', are the addresses.
- 2—Tia, is Listerenus' novel contraction for *Antiacid*.
- 3—Here is proof that the expression "Hey", used to-day as if newly discovered, by our so-called flappers and drug store cow-boys was the vogue then or "the vernacular of the streets," as Listerenus puts it.
- 4—Corso, as we all know, was the main square or concourse in Rome.
- 5—The originators of imitation marble and guides for plaster work which probably enabled them to secure the Odd Fellows Job, which Listerenus says they "bought", at a figure of 61,920 denarii less than their next competitor. Listerenus, however, seems to think they made an error and does not attribute their success to their economic invention, or perhaps their method was kept a secret then and not yet revealed to Listerenus and his employers.
- 6—It is also interesting to note that the Prix de Rome was then in force, giving traveling scholarships to country boys.
- 7—19. These Goddesses for some unknown reasons have either been overlooked or deliberately omitted in all books on Roman mythology I have ever read. Their names should be memorized.
- 8—It is interesting to note that this first "sky-scraper" was named and proportioned after the graceful Ionic Order. As no sketch was found of this marvellous building among Listerenus' manuscripts, I have taken the liberty of making the restorative drawing, as per his instructions to *Antiacid*, published herein. I shall not tell you what height I find this building to be, but rather, I will leave it to you livewires of the profession to do your own figuring and checking of my restoration.
- 9—Quite a daring procedure; I should say, and only successful in the hands of a Master.
- 10—Note tin was then more precious than gold.
- 11—Aren't these gentlemen very human though?
- 12—I disagree here with Listerenus. Personally, I find the slender effect very satisfying and dignified.
- 13—The slide-rule we find was then in use.
- 14—Also, our supposedly new cross-word puzzles.
- 15—It is to be remembered that Centiares correspond to several of our square yards and likewise the pes quadratus approximates closely our square foot. It is a very interesting little problem that Listerenus has set for us, and it is to be greatly regretted that we have not *Antiacids* solution for comparison.
- 16—We have no definite information as to just what kind of beverage was meant by dope. It is hardly possible that it referred to our present day *Coco-Cola*.
- 17—Why the Scandinavian God of Thunder is mentioned here is hard to understand. Perhaps Listerenus has been conversing with some of the Great Caesar's prisoners and desires to show off his newly acquired knowledge to *Antiacid*. I strongly suspect this of him.
- 18—Most interesting in this description of the first elevator or lift, used for conveying human cargos to the tops of tall buildings. We have often read of the Rise and Decline of the Roman Empire, but hitherto we have always taken it to refer only to the political aspects. Rise and Decline though a long name is a very natural and descriptive one.
- 19—See note 7.
- 20—You will note the proverbial mule of the Army was then an old story.
- 21—*Abacus* or *Cap*, hence Captain, is the Latin term for Head-draftsman. Judging by his name, Scourgeous, he must have been a hard taskmaster, found, I feel certain, nowhere in this world to-day. Every Head-draftsman I have had the pleasure of meeting has been a polished and polite gentleman.
- 22—This is rather a free translation here, but we have no other word in the English language that so closely approximates it.

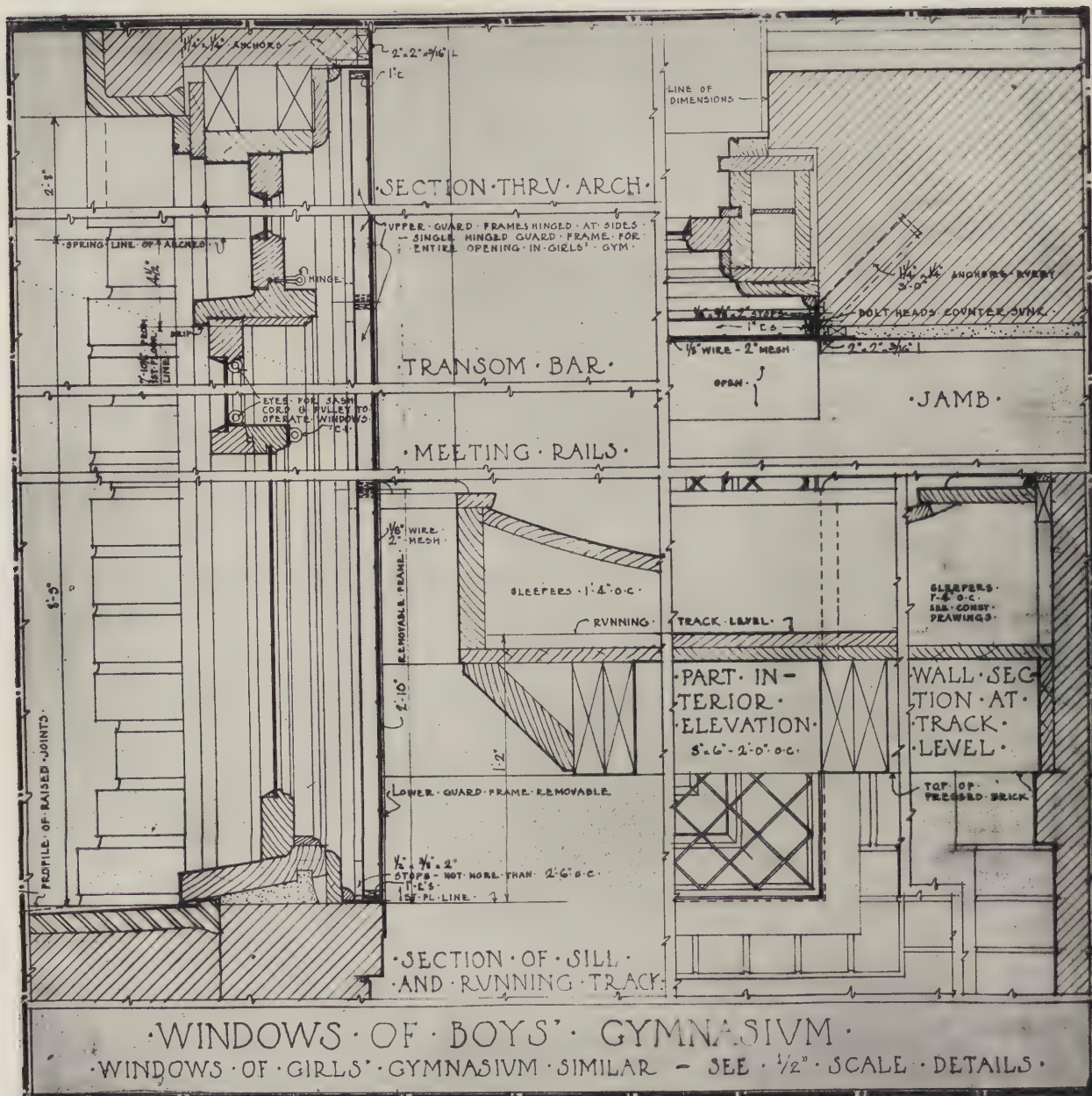


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WM. & A. A. FISHER, ARCHITECTS.



# PENCIL POINTS



DETAILS OF CONSTRUCTION—MOREY JUNIOR HIGH SCHOOL, DENVER, COLORADO

WM. & A. A. FISHER, ARCHITECTS.



# THE SPECIFICATION DESK

*A Department for the Specification Writer*

## THOUGHTS IN SPECIFICATION WRITING

*By Arno Kolbe*

IN MANY OFFICES THE writing of specifications is of secondary consideration and is invariably put off until the drawings are completed and ready to send out for estimating. This means that the specifications must be hurriedly put together, generally copied from another specification, which results in a makeshift over which endless disputes arise.

An office that turns out a good set of drawings is very often careless about its specifications, relying entirely upon the drawings to tell the contractor all he needs to know about a building.

Specifications are for the purpose of describing what cannot be shown on the drawings; that is, to describe materials and special features of the drawings; workmanship is also given a prominent place in the specifications. In the writer's opinion workmanship is something that cannot be definitely described because it is a quality which depends wholly upon the skill of the workman, which in turn is controlled by the interest the workman takes in his work. It would be better if the specification writer would confine his ideas on workmanship to methods of handling material to obtain a certain result; to say that a thing must be executed in the most workmanlike manner, or only the highest class of workmanship will be accepted, means very little to most of us and it does add considerably to the length of the specification.

Specification writing is considered laborious by many and we all strive to make it easier by resorting to systems. The trouble with many systems is that they become so cumbersome. A system to be workable should not have many elements. There are really only a few things one must know when writing specifications; he must know his materials and their uses; he must know, too, the result he wishes to obtain. With different materials to choose from he must choose the right one keeping in mind the cost thereof. Many new things are constantly being brought out, these must be looked into and studied. A well indexed catalog system is a valuable aid to a specification writer.

A good specification should have form; that is, it should be divided into trade groups. Each division of the specification should be complete in itself, and each should start with its general clauses followed by the general description of work, materials and workmanship; this order should be maintained throughout the specification. Another good rule to follow is to write the specifications in the order the trades appear on the job. It is easier that way to pick up any omissions. A specification that is written in this manner is easy to grasp and enables the contractor to visualize the architect's conception of the building when completed. This division of specifications into trade groups makes the work of estimating less complicated, with the assurance of more intelligible estimates by sub-contractors. In many offices the contractor's interests are not considered when the drawings and specifications are being prepared. The architects lose sight of the fact that the owner, architect and contractor are all interested parties in a building operation and hence must work in harmony to produce satisfactory results.

Specification writing is sometimes considered a memory feat, the writer saying to himself when his work is done, "What have I forgotten?" To guard against omissions the specification writer falls back on his checking list which is a valuable document if it is kept up-to-date. Another

kind of reminder is the card system. This is used in many offices and is an excellent system. The only objection that can be found with it is that it is difficult to make it applicable to all classes of work. The writer's experience has been that different classes of buildings require different card systems. Everyone knows that a specification for a residence would require an entirely different treatment from a commercial or a public building, hence if only one set of cards were used the subjects would be so varied that it would be a task to assemble the cards needed to make up the specification.

We hear a great deal on the subject of standard specifications, and architects are encouraged to use same by manufacturers of different products. These standards are found to be so voluminous that architects hesitate to use them. In special cases, such as tests for steel, cement, and some standard products, it is quite the custom for specification writers to quote their acceptability. The time may come when this can be extended, but as long as the human element enters into the construction of buildings, the specification must continue to describe the materials and the uses to which they are to be put.

The specification writer in specifying a reinforced concrete arch construction will state that the floor slab shall be constructed of cinder concrete of 1:2:5 composition, four inches thick, over plank forms; soffits of beams to have a continuous wire mesh; sides and bottoms of beams well spaded, etc. The actual operation at the building would be as follows: the wood forms much be reasonably watertight and strong enough to bear the weight of the concrete put on them; first the thin concrete would be poured in the sides and bottoms of beams, then would follow a thin layer of concrete spread over the board forms; the mesh is unrolled and placed over this concrete; mesh must be secured to flange of beams by turning over wire and each width of mesh laid so as to preserve the spacing of the mesh; if necessary to splice mesh it should be lapped about eighteen inches and ends hooked-up; finally the concrete arch itself is poured and well tamped.

It is scarcely to be expected that the specification writer would go into such detail in specifying a floor arch construction, yet he must have knowledge of how such work should be done if he would become proficient in his particular field of endeavor. So it is in other items of construction, unless the knowledge is there the specification writer is simply writing words which he hopes will mean something to somebody else.

As to the qualifications of a specification writer, he must know materials and the mechanics of the various parts of building construction. To gain this knowledge he should spend some time in an architect's office where he can become familiar with working drawings; this experience should be followed up by going on a building under construction where he can study the materials and the method of putting a building together. Contact with buildings under construction is valuable in that it gives the embryo specification writer an insight into building methods which he could never get in an architect's office.

The specification writer should make a serious study of his work; write his specifications while the drawings are being prepared; have the job captain make notes of special features; consult the drawings often; and above all else specify nothing until he has made himself familiar with it.



# H. C. LOMB RESIDENCE

AT WHITE PLAINS, N.Y.

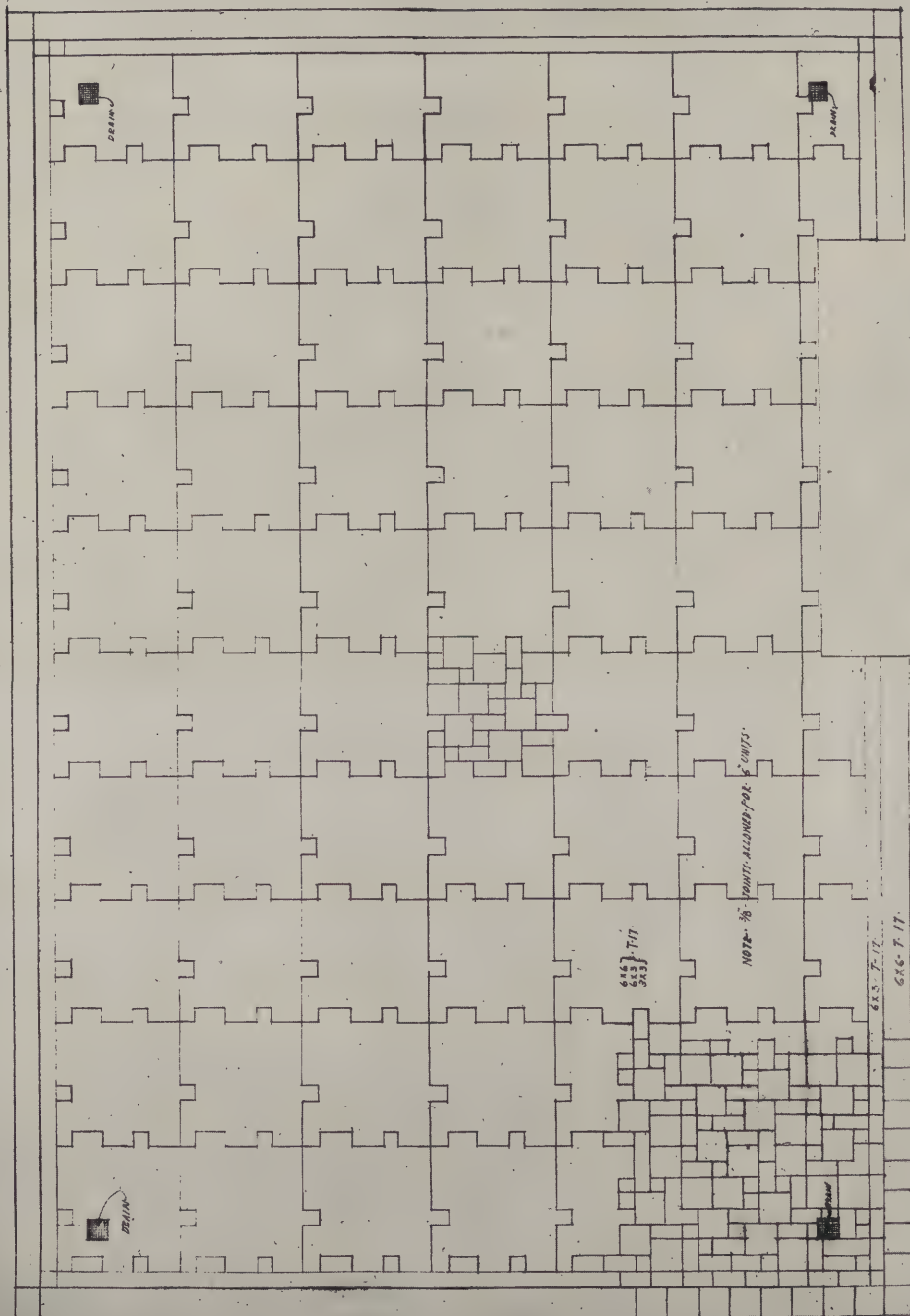
## 3/4" SCALE LAYOUT OF FAIENCE TILE FLOOR

LIVING ROOM PORCH

SHOP DRAWING NO. 52

April 14, 1922

Alfred Bussette, Architect  
345 Madison Ave. N.Y. City  
H. H. Hammond & Son, E. C. Builders  
132 Madison Ave. N.Y. City



LAYOUT FOR FAIENCE TILE FLOOR, SHOP DRAWING BY W. E. SCHLIMGEN  
HOUSE FOR H. C. LOMB AT WHITE PLAINS, N. Y. ALFRED BUSSETTE, ARCHITECT.



# PUBLICATIONS

## OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Pittsburgh Silvered Reflectors.**—Catalog No. 28 A.I.A. File No. 31-F-22. A valuable handbook with carefully prepared technical data and much extremely important information on the subject of lighting. Profusely illustrated with color reproductions and diagrams. 100 pages. 8½ x 11. Handsome and substantial binding. Pittsburgh Reflector Co., Bowman Bldg., 3rd Ave. & Ross St., Pittsburgh, Pa.

**Aero Radiators.**—Catalog No. 34. Complete description of this new type of radiator combining attractive appearance with greatest efficiency. Tables of sizes, ratings and complete information from which correct specifications may be prepared. National Radiator Co., Johnstown, Pa.

*Published by the same firm, "Data Sheet" showing easy method of figuring radiation for steam, vapor, hot water heating plants.*

**Hollow Walls of Brick and How to Building Them.**—Illustrated booklet containing complete information on the "Ideal" Wall, including full data on new types of the "Ideal" Wall. Description and construction data, details, specifications. 8½ x 11. 24 pp. The Common Brick Mfrs. Assn. of America, Cleveland, Ohio.

**The Heart of the Home.**—Catalog No. 31 illustrates and describes complete line of kitchen ranges in all combinations, and other accessories for modern kitchen, residence, hotel or club. 36 pp. Bramhall, Deane & Co., 261 West 36th St., New York.

**The Evanston Sound-Proof Door.**—Data sheets covering sound-proof doors, folding partitions and other similar equipment. Standard Filing size. Irving Hamlin, 1504 Lincoln St., Evanston, Ill.

**Brief Wood Finishing Formulas.**—Loose-leaf sheets with index, specifications, covering all classes of wood finishing. 64 specifications. 8½ x 11. Berry Bros., Detroit, Mich.

**Color Card and Specifications for MINWAX Brick and Cement Coating for Waterproofing and Decorating Concrete, Brick, Stucco and Plaster.**—A.I.A. Standard Classification File No. 25-c-2. 8½ x 11. Minwax Co., 270 Madison Ave., New York.

**Floors Without Flaws.**—Folder stating seventeen floor problems and giving seventeen answers, covering a wide range in everything from concrete to composition, and from wood to linoleum. Very interesting and useful document. A.I.A. File No. 3-B. 8½ x 11. A. C. Horn Co., Horn Bldg., Long Island City, N. Y.

**"Dycrome."**—Leaflets illustrating in color and describing this colored surface hardener for concrete floors. Specifications. 8½ x 11. The Master Builders Co., 7018 Euclid Ave., Cleveland, Ohio.

**The Overhead Door.**—Pamphlet illustrating and describing this type of door. Contains detail drawing. A.I.A. File No. 17-3-2. The Overhead Door Corp., Hartford City, Indiana.

**"Ag-lite"**—Folder illustrating and describing the new improved types of Aglites, for homes, hotels, hospitals, apartments, bathrooms, kitchens, hallways. Tables of prices, etc. A.I.A. File No. 31-f-23. 8½ x 11. The Edwin F. Guth Co., St. Louis, Mo.

**Pacific Steel Heating Boilers for Bungalows, Residences, and Small Apartments.**—Bulletin No. R.T. 26 fully illustrates and describes these types of boilers. Contains tables of measurements and specifications. A.I.A. File No. 30-C-1. 8½ x 11. 6 pp. General Boilers Co., Waukegan, Ill.

*Published by the same firm, "Pacific Steel Heating Boilers For Oil Firing" Bulletin No. O. F. 26, A.I.A. File No. 30-C-1, "Pacific Steel Heating Boilers Down Draft Smokeless Type", Bulletin No. DD 26, A.I.A. File No. 30-C-1, "Pacific Steel Heating Boilers Smokeless and Direct Draft Types". Bulletin No. SC 26, A.I.A. File No. 30-C-1.*

**G & G Atlas Systems.**—Booklet on the subject of pneumatic systems for department stores, banks, hotels, office buildings, hospitals and industrial plants. Fully illustrated and containing plans and specifications. A.I.A. File No. 35-h-21. 12 pp. 8½ x 11. G & G Atlas Systems, Inc., 535 West Broadway, New York City.

**Zouri Store Fronts.**—Catalog No. 14 and seven full size detail sheets illustrating in color and fully describing Zouri Safety Key-Set and International Store Front Construction manufactured in solid copper or bronze. Contains also full size perspectives in color. A very valuable and useful document. A.I.A. File No. 26-B-1. 8½ x 11. Zouri Drawn Metals Co., 1608 East End Ave., Chicago Heights, Ill.

*Published by the same firm, "The Business of Buying a Store Front. Handsome Brochure in color showing various and interesting treatments of store fronts. 8½ x 11. 31 pp.*

**Sash Cord Data.**—Folder with illustrations, sizes and other information covering the subject of sash cords. There is included in the folder an interesting study of a window in a small school of the Romanesque type of architecture. Samson Cordage Works, Boston, Mass.

**Non-Plus Lamella Roof Construction.**—Pamphlet illustrating and describing this type of roof construction. Non-Plus Lamella Constructions, Inc., 219 Balter Bldg., New Orleans, La.

**The New Allen Multi-Vane Turbine Ventilator.**—Booklet illustrating and describing this type of ventilator for apartment, residential, recreation, laundry, cleaning and dyeing, dairy and agricultural, hotel, restaurant and baking ventilation. Also modern method public building and school ventilation, garage ventilation and marine ventilation. Tables of measurements, prices, weights, gravity flue data, etc. Instructions for inspection, handling and erection of ventilators and typical installation sketch, 4 x 9. 25 pp. Allen Air-Turbine Ventilator Co., 14th and Howard Sts., Detroit, Mich.

**Modern Hardware in Antique Design.**—Leaflet containing many interesting examples of hardware in antique design. Western Hardware Corp., 217 Tahama St., San Francisco, Calif.

**The Tin Roofer's Handbook.**—Interesting booklet on the subject of roofing. Gives brief history of tin roofing, the advantages of a good tin roof; also working specifications and the standard specifications. All handled in a clear, simple style. National Association of Master Sheet Metal Workers, Philadelphia, Pa.

**The Kernerator.**—New Catalog just off the press illustrating and describing the Kernerator and its adaptability for homes, apartment buildings, hospitals, schools, apartment hotels, clubs and other buildings. Shows standard models and six basement layouts for each model, minimum flue size required, etc.; also construction details. Contained in A.I.A. Folder No. 35-j-41 together with other interesting folders and booklets on the subject. 8½ x 11. Kerner Incinerator Co., 703 E. Water Street, Milwaukee, Wis.

**Par-Lock Specifications.**—Data bulletin listing 14 specifications on the uses of this material in connection with plastering on concrete surfaces, waterproofing, dampproofing, insulating, etc. Standard filing size 8½ x 11. Vortex Mfg. Co., Cleveland, Ohio.

**Architects' Handbook on Metal Doors and Trim, Elevator Enclosures, Conduo-Base.**—Handsomely illustrated handbook describing hollow metal doors, frames and trim. Underwriter's labeled doors and frames, elevator enclosures, adjustable steel partitions, telephone and coupon booths, wainscoting, combination and unit door frames, dumbwaiter openings, cold rolled, drawn or pressed steel and bronze shapes. Also contains standard specifications, cross sections, plans, diagrams, full size sections, color cards of finishes, list of installations, etc. 8½ x 11. 108 pp. The United Metal Products Co., Canton, Ohio.

**Coburn 750 Type Door Hanger and Track.**—Folder illustrating and describing this type of hanger for sliding doors of any size and weight. Suggestions. The Coburn Trolley Track Mfg. Co., Holyoke, Mass.

**Church Furniture.**—Erochure dealing completely with this subject with beautiful illustrations. 8½ x 11. 48 pp. American Seating Co., 14 E. Jackson Blvd., Chicago, Ill.

**Why Go To The Extra Trouble?**—Pamphlet illustrating and describing the ANKYRA Ankor Bolts and their many uses. Ankyra Mfg. Co., 149 Berkley St., Philadelphia, Pa.

**Bonding Surfaces on Concrete.**—Leaflet featuring Con-Tex for producing bonding surfaces on concrete. A.I.A. File No. 21-f. Much interesting and useful data. 8 x 11. Concrete Surface Corporation, 342 Madison Ave., New York City.

**Walker Alsteel Underfloor Duct System.**—Interesting booklet fully illustrating and describing this system. Plans, layout notes, tables. 24 pp. 8½ x 11. Walker Bros., 10 East 41st St., New York City.

**Fenestra Industrial Windows.**—Handbook illustrating and describing Windowalls, Continuous Monitor Sash. Mechanical Operators, Partitions, Doors. A.I.A. File No. 16-e-1. Details, tables, vertical sections, horizontal sections, etc. 76 pp. 8½ x 11. Detroit Steel Products Company, 2250 E. Grand Boulevard, Detroit, Mich.

**Tontine Washable Shade Cloth.**—Sample book containing the different colors in which this fabric is made. Also test swashes showing how this material when soiled may be cleaned with soap and water. 5 x 8. E. I. DuPont de Nemours & Co., Inc., Newburgh, N. Y.

**Trutye Steel Bridging.**—Folder illustrating and describing this type of steel bridging. A.I.A. File No. 14-J-3. Blaw-Knox Co., Pittsburgh, Pa.

**Frigidaire Kitchen Plan Book.**—Contains complete information about Frigidaire especially prepared for architects. A.I.A. File No. 32-d. Brief Specifications and detailed specifications, methods of installation, plans, also contains a very interesting design for a model kitchen. 27 pp. 8½ x 11. Frigidaire, Dept. C-35, Dayton, Ohio.

*Published by the same firm, "Model Kitchens as Submitted in the Frigidaire Competition." A very valuable and useful little book. 8½ x 11. 47 pp. Also "Frigidaire for Household and Commercial Uses."*

**Period Adaptations for Modern Floors.**—A study of the architectural and decorative values of floor treatments exemplified in rooms of period interest with notes, on designing and installing of modern floors. Contains many illustrations, color plates, specifications, data installations and details. Handsome Brochure. 60 pp. 8½ x 11¼. U. S. Rubber Co., 57th St. & Broadway, New York.



**Capitol Smokeless Boilers.**—Booklet for the specification writer containing complete information, also Capitol Boilers, Square Type and Capitol Boilers, Winchester Type. Covers subject of these lines completely. United States Radiator Corp., Detroit, Mich.

**"Beautifying the Home Grounds".**—336 designs of pergolas, trellises, lattice fences, gates, entrance arches, summer houses, garden furniture, working drawings, photographs and sketches. A valuable addition to the library of every architect. Price twenty-five cents. Southern Pine Association, New Orleans, La.

*Published by the same firm, Southern Yellow Pine Flooring, Technical Bulletin No. 1, containing specification and design information and data for the use of architects and engineers. A.I.A. File No. 19-c-9.*

**Exterior Lighting Fixtures.**—Catalog J profusely illustrated showing full range of exterior lighting fixtures for all requirements. Hundreds of designs. 108 pp. 8½ x 11. Smyser-Royer Co., 1609 Sansom St., Philadelphia, Pa.

**Sanymetal Catalog, No. 15.**—Just off the press. Complete textbook with working drawings on metal partitions for toilets, showers, offices, factories, hospitals. Embodies many suggestions and innovations. The Sanymetal Products Co., 1712 Urbana Road, Cleveland, Ohio.

**The Story of Oak Floors.**—A profusely illustrated brochure containing interesting story on oak with colored plates showing grains and finish. 24 pp. 6 x 9. Oak Flooring Bureau, Hearst Bldg., Chicago, Ill.

**The Roof Beautiful.**—Brochure illustrated in color on the subject of roof treatment. 8 x 11. 32 pp. Ludowici Celadon Co., Monroe Bldg., Chicago, Ill.

**Rolling and Folding Doors and Shutters.**—Catalog No. 51. Complete catalog profusely illustrated covering all types of equipment for various uses. 136 pp. 8 x 11. The Kinnear Mfg. Co., Columbus, Ohio.

**Ready Reference Folder No. 2.**—Illustrating and describing a Josam drain for every purpose, tables, price lists, cross sections. Josam Mfg. Co., Michigan City, Indiana.

*Published by the same firm, "Josam Roof Drains and Accessories for Every Roof".*

**Jenkins Valves.**—Four convenient handbooks classified according to types of buildings. The series covers hotels, apartment houses, clubs, auditoriums, theatres, industrial plants, office and loft buildings, banks and stores, public buildings, schools, churches and community houses. Jenkins Bros. 80 White St., New York City.

**Cotswold Casements.**—Brochure showing casements and leaded lights in standard sizes and designs. Exterior views of noted English and American houses, hardware details and 12 plates of details useful in the drafting-room. 8½ x 11. International Casement Co., Jamestown, N. Y.

**Architectural and Ornamental Iron Work.**—Catalog No. 6 illustrates and describes Safety-Lock Pressed Steel Stairs for schools, department stores, factories, banks, theatres, etc., cross sections, details. 44 pp. 8½ x 11. The Hughes-Keenan Co., Mansfield, Ohio.

**Lock-Joint Wood Columns.**—Catalog No. 47 illustrates and describes fully this type of column. Contains instructions for ordering sections of columns and pilasters, tables, specifications, also many illustrations of buildings where these columns have been used. 7½ x 10. 46 pp. Hartmann-Sanders Co., 2155 Elston Ave., Chicago, Ill.

**The Dunham Hand-Book No. 314.**—A very useful book for all architects, draftsmen and specification writers. Convenient pocket size, completely indexed, 190 pp. All on the subject of heating. Dunham Co., Dunham Bldg., 450 E. Ohio St., Chicago, Ill.

**Fireplace and Flue Construction.**—The Covert System with diagrams, sections, and details. Specialties. Also includes data on sidewalk doors and wind-proof scupper. 16 pp. 8½ x 11. The H. W. Covert Co., 137 East 46th St., New York City.

**The Little Red Ball—The story of good wrought iron.**—An industrial story reprinted from "World's Work". Booklet on the subject indicated. 12 pp. 6 x 9. A. M. Ebers Co., Pittsburgh, Pa.

**Betzo Equipment.**—Equipment for the modern kitchen and bathroom. Kitchen units, bathroom cabinets, broom closets, etc. Frank S. Betz Co., Dept. PP. Hammond, Indiana.

**Fences, Gates and Railings.**—Manual No. 60 contains complete specifications, scale drawings, details and dimensions and much other useful data on the subject. Standard filing size and form. 8½ x 11. 94 pp. Anchor Post Iron Works, 9 East 38th St., New York.

**Vapor Details.**—Bulletin No. 21 contains Vapor System details together with standards for computing radiation and boiler sizes, cross sections, tables of sizes, capacities and dimensions, typical elevation, typical boiler room assembly, basement piping plan, etc. Much useful data. Illinois Engineering Co., N. W. cor. 21st & Racine Ave., Chicago, Ill.

**Pumps for Buildings.**—Catalog No. H-301 covers subject indicated for the information of architects, engineers and specification writers. All suitable types of pumps are described together with their capacities for all building uses. 48 pp. 8½ x 11. Fairbanks, Morse & Co., 900 S. Wabash Ave., Chicago, Ill.

**Economical Buildings for Farm and City.**—Catalog containing full information on the subject of Dickey Glazed Hollow Building Blocks. Contains many illustrations, cross sections, floor plans, elevations, etc. 7¾ x 10¼. 42 pp. W. S. Dickey Clay Mfg. Co., Kansas City, Mo.

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**Draftsman**, 28 years old, with four years' general experience, principally on residence work, would like to connect with a small or medium sized office. Fairly good in rendering in pencil, pen and ink and wash. Married, no children, will consider any part of the country. W. B. Mitchell, 22 West 83rd Street, New York City.

## STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

Of PENCIL POINTS published monthly at Stamford, Conn., for October 1, 1926.

State of New York, ss.,

County of New York

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared W. V. Montgomery, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the Corporation publishing Pencil Points, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, The Pencil Points Press, Inc., 19 East 24th Street, New York.

Editor, R. F. Whitehead, 150 East 61st Street, New York.

Managing Editor, None.

Business Manager W. V. Montgomery, 19 East 24th Street, New York.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the name and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.)

The Pencil Points Press, Inc., 19 East 24th Street, New York City.

Ralph Reinhold, 19 East 24th Street, New York City.

E. G. Nellis, 19 East 24th Street, New York City.

Marion S. Carpenter, 920 Fifth Avenue, New York City.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is..... (This information is required from daily publications only.)

W. V. MONTGOMERY,  
Business Manager.

Sworn to and subscribed before me this twenty-second day of September, 1926.

[SEAL]

CURVILLE C. ROBINSON,  
Notary Public.

My commission expires March 30, 1928



# PENCIL POINTS

An Illustrated Monthly JOURNAL for the  
DRAFTING ROOM *Edited by* RUSSELL F. WHITEHEAD

KENNETH REID & E. L. CLEAVER *Published by* THE PENCIL POINTS PRESS, INC.  
Ralph Reinhold, *President*, Edward G. Nellis, *Vice-Pres.*, W. V. Montgomery, *Secretary*



## *Our Annual Competition.*

ON ANOTHER PAGE of this issue appears the program for the first PENCIL POINTS Annual Architectural Competition, the subject of which is the design of a residence and garage. In bringing this competition before our readers it is our expectation that a great many draftsmen and designers will take part and that they will all give serious study to the definite architectural problem presented in the program. The designs submitted, coming from widely distributed sources and representing various points of view and methods of approach, will, we hope, furnish results at once practical to construct and pleasant to look at.

In competitions of this sort, each entrant is, of course, working with the object of winning the capital prize. Only one person can achieve this agreeable distinction. A few others will win the lesser prizes and mentions, while the great majority will find their efforts fruitless, considered in terms of cold hard money. The draftsman who has never before competed or who has tried often and unsuccessfully may ask himself therefore, "Why should I enter? Why should I spend my time and effort on something which will very probably bring me no honor, no glory, no material reward?"

We can understand such an attitude, but it is our conten-

tion that any man who goes into a competition, irrespective of whether he finishes among the winners or at the tail end of the procession, is unquestionably the gainer. His gain is in direct proportion to the amount of study and thought he puts into his design. The program of the competition calls for the solution of a problem that undoubtedly every architect and draftsman has studied at some time in his career. No one can go through the process of working out such an architectural problem, appor-

tioning the available space on the plan to best advantage, considering circulation in its relation to the rooms, developing pleasing façades and well proportioned masses, designing details, and making the building economical of construction, without learning something that he did not know before. The next time he has a job to tackle he will do it more easily. Disappointed though he may be at not winning a prize he will have still the pleasure of having created a design, which, incidentally, he may be able to use for some client.

Yes, the game is worth the candle. Let each one go in to win, but let him not feel that his effort is wasted if he is no richer in pocket in the end. After all, each contestant has a chance to be victorious. Why should it not be you?

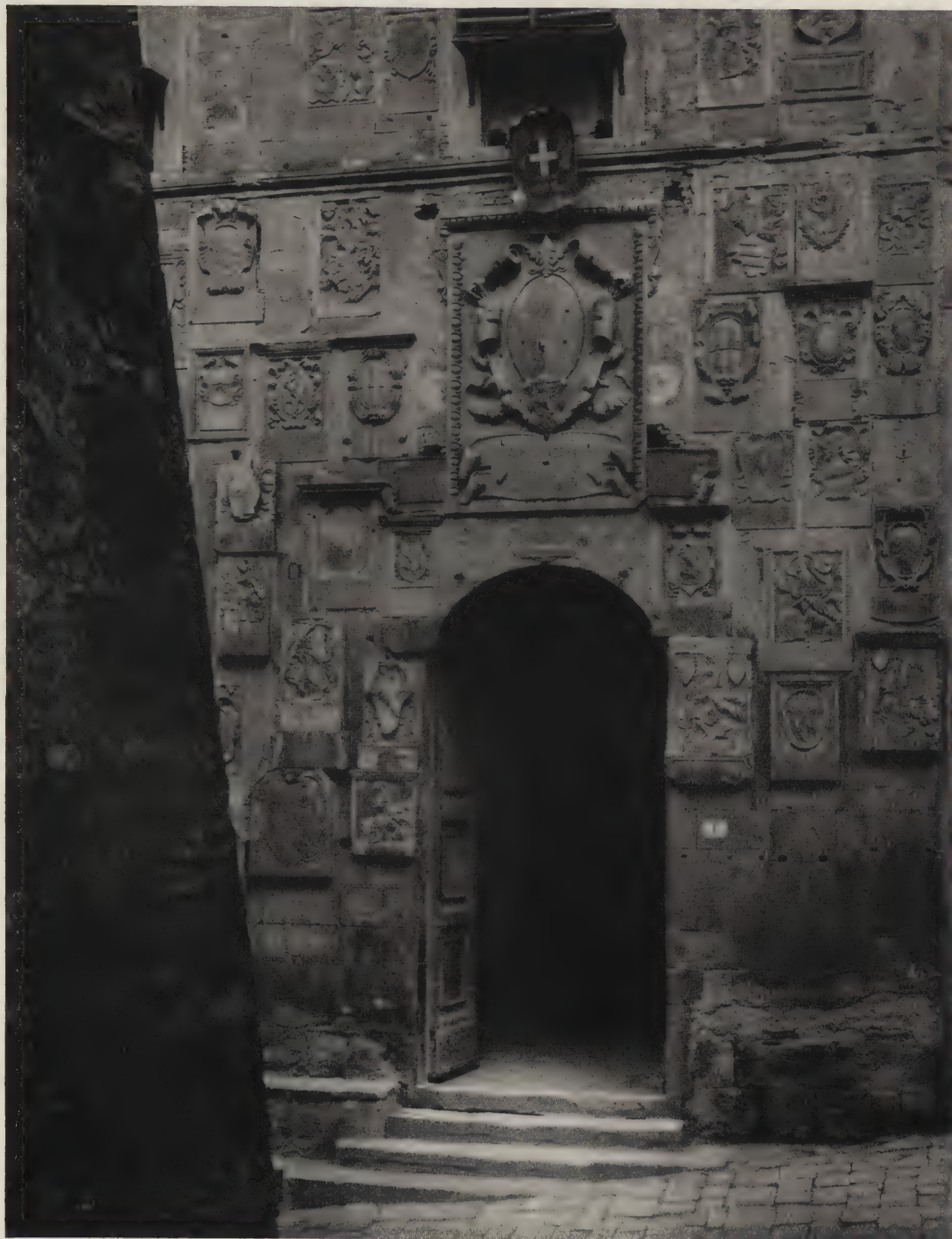
This competition is sponsored by the Arkansas Soft Pine Bureau.

## Contents

The Relationship Between The Architect and The Draftsman	
By Irving K. Pond	709
Master Draftsmen XIX, Thomas MacLaren	
By Duncan McLachlan	711
Wrought Iron Precedent V — Spanish Iron Work	
By Gerald K. Geerlings	727
The Roman Alphabet	
By Frederick W. Goudy	735
An Office Competition	
By Jens Fredrick Larson	741
Color Renderings	Insert
Plates	743-750
Whittlings	751
Here & There & This & That	
Conducted by R. W. R.	758
Pencil Points First Annual Architectural Competition	762
The Specification Desk	765
Index to Volume VII	768

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CAMERA STUDY BY PAUL HERMANN  
SIDE ENTRANCE, COURT HALL, PERUGIA



# PENCIL POINTS

Volume VII

December, 1926

Number 12

## THE RELATIONSHIP BETWEEN THE ARCHITECT AND THE DRAFTSMAN

*By Irving K. Pond*

VERY NATURALLY, in a journal of the character of PENCIL POINTS, the relationships discussed would be those existing between Architect and Draftsman rather than between Architect and Superintendent, Architect and Accountant, or Architect and Sanitary Engineer; for between the covers of this magazine emphasis is laid on the aesthetic side of architecture, that side dealing with the creative processes of the imagination. Yet all these other phases, superintending, administration, sanitation, construction, are inherent in architectural practice, and architects have arisen from the ranks of the superintendents, the administrators, and the structuralists, and even from the tailor shop. Therefore, it is not, necessarily or primarily, the fact that draftsmen are embryonic architects that accounts for the juxtaposition of the words "architect and draftsman" in this series of little essays. It is, rather, the potency of the draft or drawing, as a conveyor of ideas from the designer to the craftsman that makes the conjunction of the words so fitting in a journal contributed to and read by architect and draftsman alike. The draftsman in the perfectly normal case is the extension of the architect's hand. In many instances he is the extension of, and in too many instances the repository of the architect's mental equipment and imaginative mechanism. This latter is not a proper relationship; for when the draftsman occupies that position he should be the architect while the other should be the "job" getter (quite a necessary function) and the administrator.

The architect is somewhat analogous to the physician who diagnoses a case and writes the prescription. The builder in the analogy performs the duty of the apothecary and fills the prescription.

There is no need for the draftsman until the practice of the physician-architect grows so large that he has to delegate the writing out of the prescription to others, dictating his words, conveying his ideas, through the medium of sketches, to his assistants. The physician's assistant contents himself with the task of writing the prescription clearly so that the apothecary need make no error in selecting the ingredients and in compounding the mixture; only the art of legibility is needed in this. The architect's assistant, the draftsman, and too frequently the architect himself, mistakes the means for the end and spends valuable time (let us suppose his time is valuable) and substance, which in great measure is wasted, in producing elaborately rendered plans, elevations



IRVING K. POND, F. A. I. A.

and perspectives of absolutely trivial and commonplace structures. The process is needless in serious and sincere practice even when the design is worthy. The architect's business is with the building in all the intricacies of its design and construction and the vital part of that business, the part which will make the building live in the lives and hearts of humanity, is the creation of beauty. The Architect too often by the production of beautiful drawings, deceives himself into believing that he has produced what will eventuate in a beautiful building. A building which is not beautiful when presented in simple out-



line with the simplest indication of spaces and materials will not be beautiful in reality. There will be less economic waste when the public, the architect and the draftsman come to understand and act upon this principle.

As indicated, the draftsman is the extension of the architect's mind, hand and heart. He should not *be* these things but the *extension* of them. Which means that the architect should work with and through the draftsman. The architect should be sensitive to the feeling in the draftsman as he is to the feeling in his own hand and heart. And there should be sympathetic response on the part of the draftsman as there is in the hand and heart of a well co-ordinated human body. This means an intimate relationship between the co-ordinate branches in the drafting room. There will be no "clashes" between the structural engineer and the "designer" if the architect has thought his problem through. The designer will appreciate the needs of structure, and the structuralist will reciprocate. The difference between engineering and architecture is that in the latter conventional structure bows to the necessities of sincere beauty—and there is no beauty except it be sincere; there is no beauty other than this toward which any thing or anybody need show concern. However, architect and draftsman, each should realize that the beauty must ultimately be a characteristic of the building. The architect and the draftsman should understand that the building is the end and architectural practice the means. The drawings, like the specifications, should be clear, concise, accurate and explicit. The architect's own thought in reference to the specific problem should be the same. He should be able to see through and all around it. The draftsman should not cloud the vision in the cause of what he may consider "Art." A confused display of features on a sheet may tend to confuse the builder, and it is the builder's way which the drawings are designed to make clear. The builder is the important factor in making the record permanent,—without him the drawing is but a dream. With him, co-operating skillfully with the cultured, imaginative architect, and the sympathetic well grounded draftsman the dream will become real, another stone "well tried and true" laid in the structure in which the race is building the permanent record of its life.

This would seem to be a good place to stop; but the field is an extensive one and it may be well to traverse it a bit further. If the relationship is to ensue in which the draftsman is to be the extension of the arm or hand of the architect, being guided and directed, as this implies, from the center of force within the architect, it means that there must be a common origin or at least a body of experiences common to the two. If these experiences are limited in either architect or draftsman the work suffers and fails of attaining the high state in a direct ratio to the limitations. That vital architecture which shall last and become a record of civilization will not emanate from one who seeks to impose his will on plan or design in disregard of the will and idealism of the race. That thing which is fundamental in the race lives—that which is purely extraneous or

superficial dies. It behooves the sincere architect, then, to study more than the technique and the superficial forms of building; he must study the underlying movement and idealism of his time. He must know his people, his community, his nation, his race. He must have been through the rivers of experience; and if anything vital is to come out of his design he must lead his assistants through the same avenues of approach. The architect will not have gained this experience in the schools; neither in the academic nor in the technical schools; but each, in importance in the order named, may open a path preparatory to the school of life. Should the individual assistant elect to specialize in a narrow field,—as seems to be a present tendency,—the technical school offers a short cut; but its training should be preceded or accompanied by a broad cultural course of study, both for the sake of the individual himself and of the work he is to assist in producing. One of the most vital of the relationships between architect and draftsman lies in the sincere attempt, at least, of the architect to direct the ambitious draftsman into cultural and then into technical paths. A relationship such as this is not one sided but postulates a sympathetic attitude and eager mind on the part of the draftsman. He should be able to see the advantages to him and to the work of such a relationship. If he does so see, he will be loyal to the organization and strive in season and out of season to fit himself into it—not for the sake of the architect nor of the organization—but for his own sake and that of the work for which the organization exists. It is to produce beautiful and worthy buildings that the architectural organization exists, and one who cannot realize that and fit himself into the scheme has no rightful place in the organization.

The architect who would have his draftsman well rounded and well grounded will not keep him traveling in grooves and doing the same thing over and over incessantly because he has learned to do it well. He may do other things even better, and at least should be given the chance. The world of business is still in an embryonic stage where the employer will take advantage of the employee and the employee will take whatever advantage he can of his employer; but that condition cannot hold in the field of art where perfection of the object, and of the individual producing it, is the ideal. We know well enough that this is a commercial age. We have that hammered in on us from all sides; from clients; from builders; from commercial organizations; and there always will be commercial architectural organizations to meet the demand of commercial clients. But this is not to continue in a rank form. Evidence is not wanting that a spirit of beauty is awakening in the world; and part of that beauty consists in sympathetic understanding among peoples, and right relationships among individuals. Nowhere better can these relationships be tried out; nowhere better may they be made to exist than in the architectural organization—between the architect and his assistant, who mutually are engaged in expressing the highest ideals of society; mutually endeavoring to write in permanent materials the record of a vital and advancing culture and civilization.



# MASTER DRAFTSMEN, XIX

THOMAS MAC LAREN

*By Duncan McLachlan*

IT IS BOTH UNUSUAL and interesting to discover, among our representative master-draftsmen, a man whose training and background have been so thoroughly British and whose practice is in a region that is geographically remote from Britain and traditionally Spanish. Such an one however is Thomas MacLaren of Colorado Springs, who, influenced by the circumstance of ill health, left the attractions of Europe and settled where the horizon is somewhat broader. The setting becomes less unusual when we discover that Colorado Springs was, and is still, occasionally humorously referred to as "Little London," presumably from the number of Scots in possession.

MacLaren's student days, spent largely in London and supplemented by travel in England and on the Continent, resulted in several years of industrious effort along well directed lines and a corresponding number of notable academic successes. The various published comments on his exhibited sketches speak of a remarkable ability. This is understood when we examine his work and see its quality.

As anything written today about a Scot is incomplete without some reference to the native habit of economy, we might infer that MacLaren was born in Scotland for the purpose of being nearer his place of study. At any rate we find him receiving his first instruction in drawing in the Art Department of the High School of Stirling,—the subjects being freehand and model drawing, geometry, and perspective. The perspective end of it must have appealed strongly to his imagination for we find in his later sketches an uncanny skill in depicting Gothic vaulting in all its variations.

The next step took on a more professional aspect. Following the footsteps of so many of his compatriots who had gone south to make niches for themselves in London, MacLaren entered the office of Messrs. Wallace and Flockhart as a pupil. The junior member of the firm, William Flockhart, was

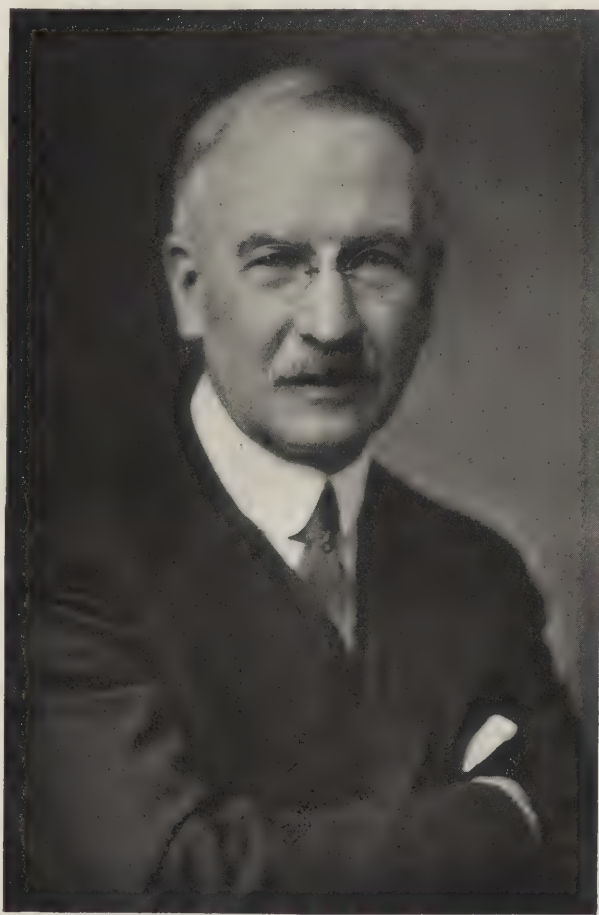
judged at that time to be one of the leading designers and draftsmen in London and his work was inspiring in a high degree to all who came under his influence. Its wide variety and artistic quality made the office in itself a "school".

I wonder if there exists a man who at some time or another has not felt the dynamic influence of a fellow being, whose high position has been achieved through sheer delight in creating. The majority of us are able to look back to our unformed state and trace the pointing of the way to some such individual. In MacLaren's case Mr. Flockhart had a great deal to do with clarifying the path and giving the initial impulse to dreams which later crystallized into realities.

As still obtains in large degree, particularly among the atelier stu-

dents of the Beaux-Arts system, the architectural student of those days in London had to find employment in an office and devote all his spare time to study. Only by a persistent and heroic use of his evenings and holidays could he obtain the necessary supplementary work in drawing and design.

MacLaren first attended the night classes at the South Kensington School of Art for the more advanced freehand drawing and study from the cast and there won first prize for freehand drawing. The next step was to enter the Royal Academy of Arts. He submitted the necessary examples of his



THOMAS MAC LAREN



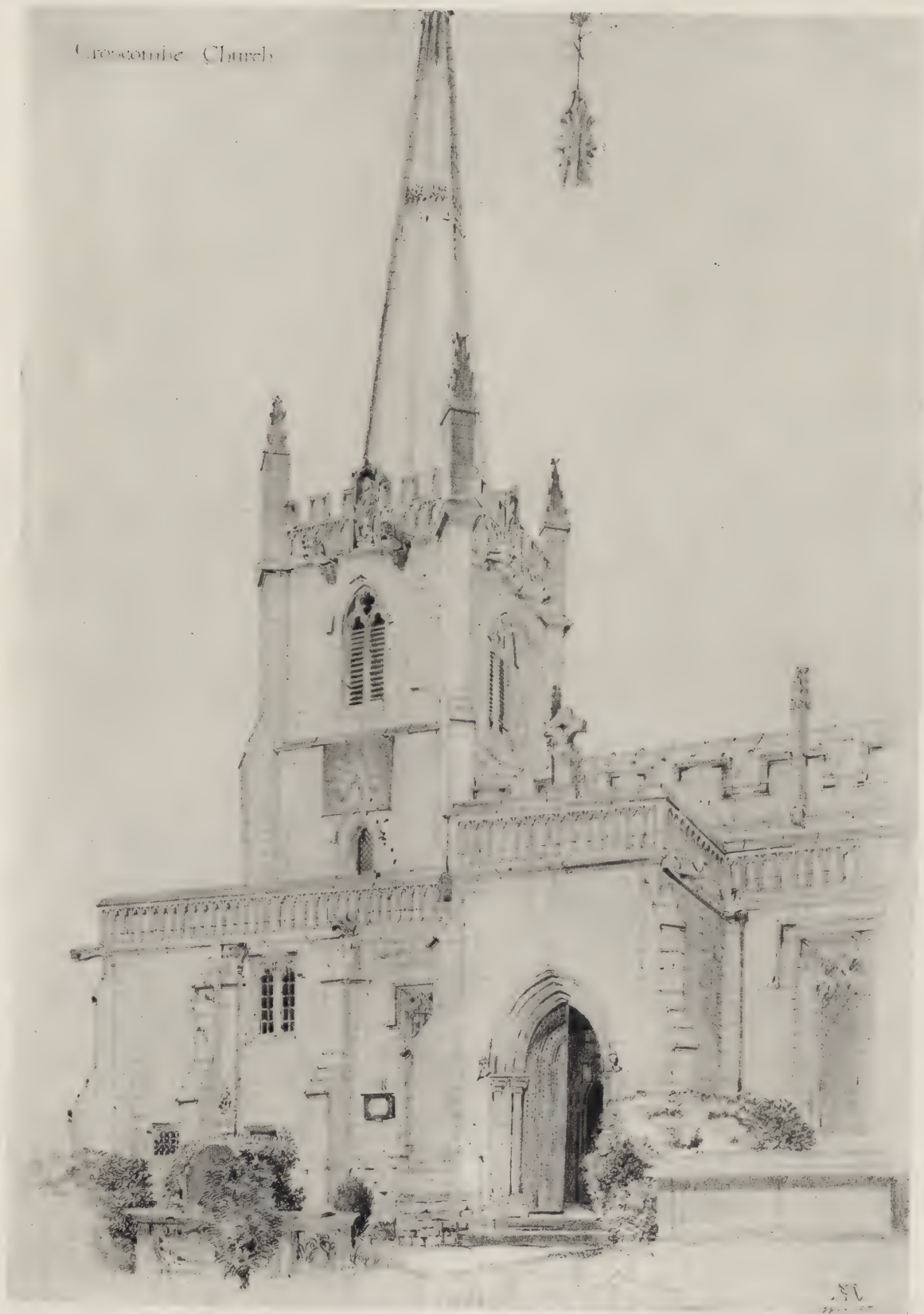
PENCIL POINTS



PENCIL DRAWING BY THOMAS MAC LAREN  
TOWER OF EVERCREECH CHURCH, SOMERSETSHIRE, ENGLAND

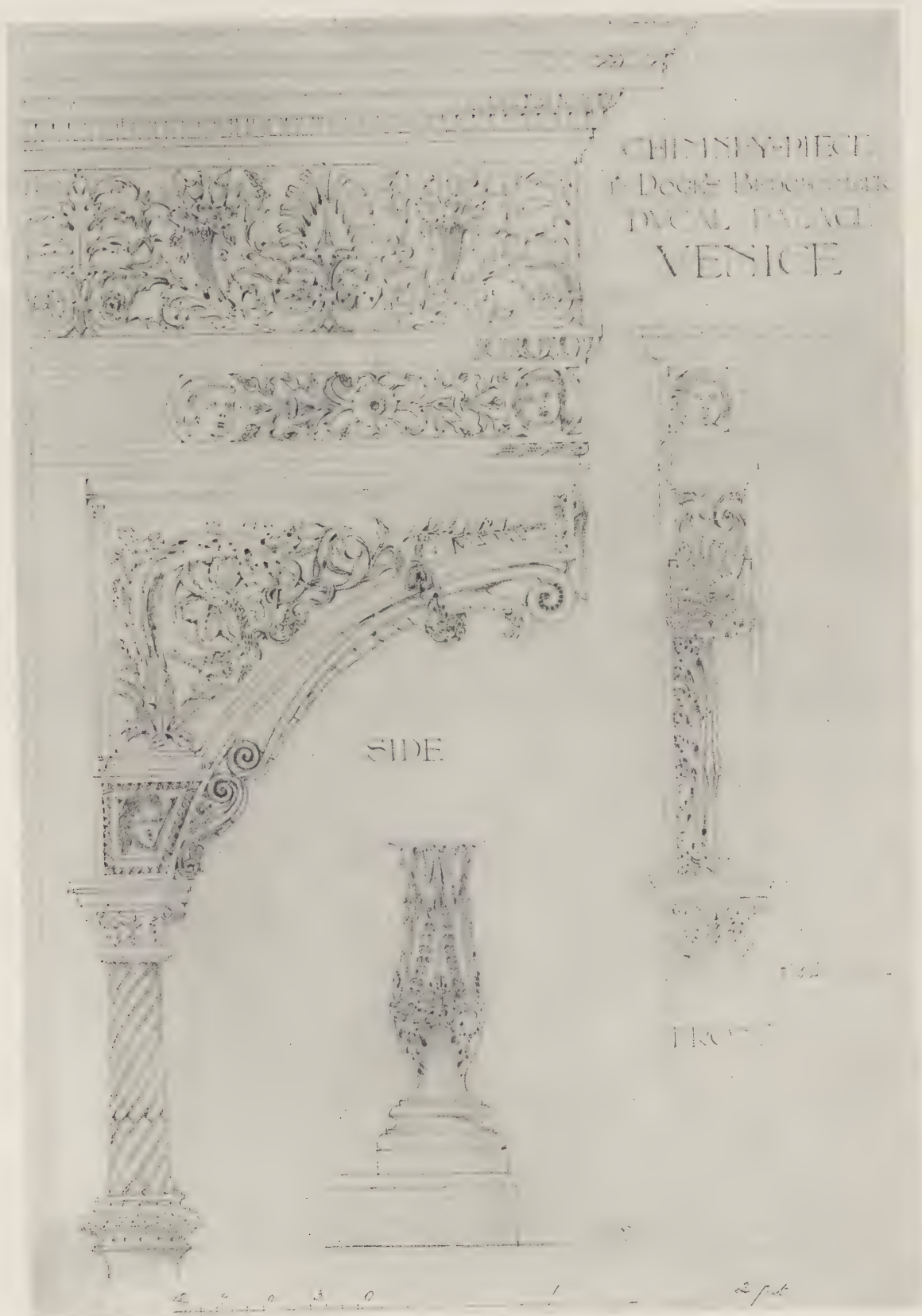


MASTER DRAFTSMEN—THOMAS MACLAREN



PENCIL DRAWING BY THOMAS MAC LAREN  
CROSCOMBE CHURCH





MEASURED DETAILS DRAWN BY THOMAS MAC LAREN  
CHIMNEY PIECE, DUCAL PALACE, VENICE



work and was admitted to the night classes of the Architectural Department. In this institution, which might be termed the British Beaux-Arts, the system was quite similar to our own. The subjects were designated and criticized in the course of preparation by leading London architects, such as George Edmund Street and Norman Shaw. A part of the study was the measuring and drawing to scale of some designated portion of an historical building. In the competition for a set of measured drawings of a portion of the cloisters of Westminster Abbey MacLaren again demonstrated his ability by winning the first silver medal. The *Building News* commented on his *projet* as a "vigorously rendered set of drawings". An amusing incident occurred in connection with this competition. When the competition drawings were first exhibited one of his competitors said to him, "I didn't know you were in this competition; I never saw you measuring at the Abbey". The haze was lifted when the winner, who had not only been burning the midnight oil but getting up at 5:30 in the morning, explained that all his measuring had been done before breakfast and that he had walked two and a half miles to the Abbey to do it. The other chap who had more luxurious ideas about work and very definite ones about sleep, retorted that he "wouldn't get up at 5:30

in the morning to make the finest drawings in the world." He lacked the spirit Sir Walter Scott referred to when he spoke of the ancient highlanders considering it effeminate to sleep out on the mountain side with a snow pillow under their heads.

Toward the close of his four year period in the Royal Academy, MacLaren's previous efforts and successes were eclipsed by his winning an Architectural blue ribbon of the School, namely the Gold Medal and Traveling Scholarship of Two Hundred Pounds. The subject of the design was a Town Mansion, and the *London Builder* commented on it thus:

"A truly fine composition in the style of the French Renaissance of the period of Francis the First, well designed and carefully considered in all its details."

Armed with this scholarship and several soft pencils MacLaren went to Italy, which for a time became the background for his interpretative skill. Under the spell of its sympathetic atmosphere and unlimited architectural treasures his productions became as delightful as they were prolific. He stayed there almost a year making pencil drawings and water colors and then devoted the rest of the time to seeing some of the other European countries. After his return to England the fruits of his travels were exhibited, whereupon Italy's expansive influence caused the *Building News* to say ".....

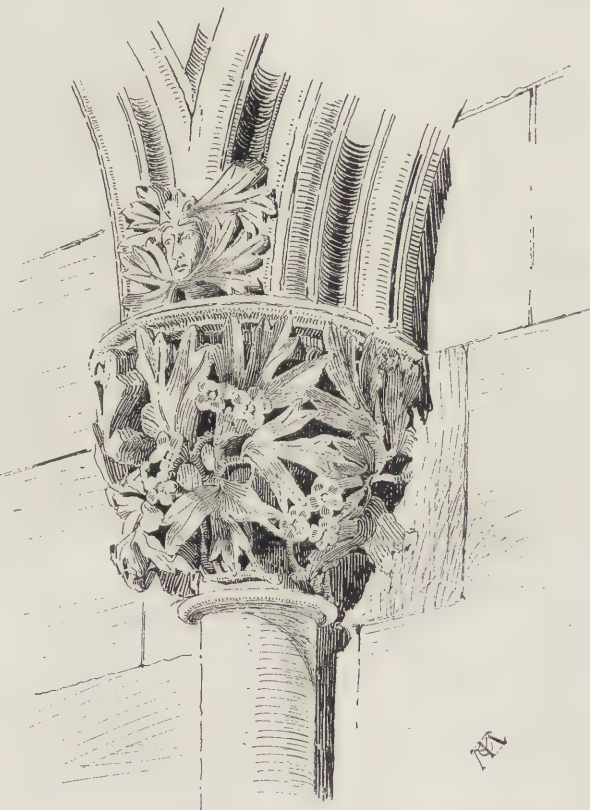
...the best in our recollection ever brought back from the Continent by a Royal Academy traveling student."

It was not particularly difficult for him, with his sound background and well developed skill, to display more of the Scotch acquisitiveness by lifting the Pugin Traveling Scholarship. The "Pugin," founded to the memory of Augustus W. Pugin, associate architect with Sir Charles Barry on the Houses of Parliament, London, is given annually by the Royal Institute of British Architects. The award is made on the merit of sketches submitted and made by students on their own time,—holidays, and so on. It was originated for the purpose of giving opportunity for special study of Mediaeval architecture

and involved a three months' sketching tour of Great Britain.

MacLaren's later ecclesiastical work shows the impress of this particular study. On that tour he was enabled to acquire a close and permanent acquaintance with Gothic architecture,—a style which is not particularly well known or understood in America except by a limited number.

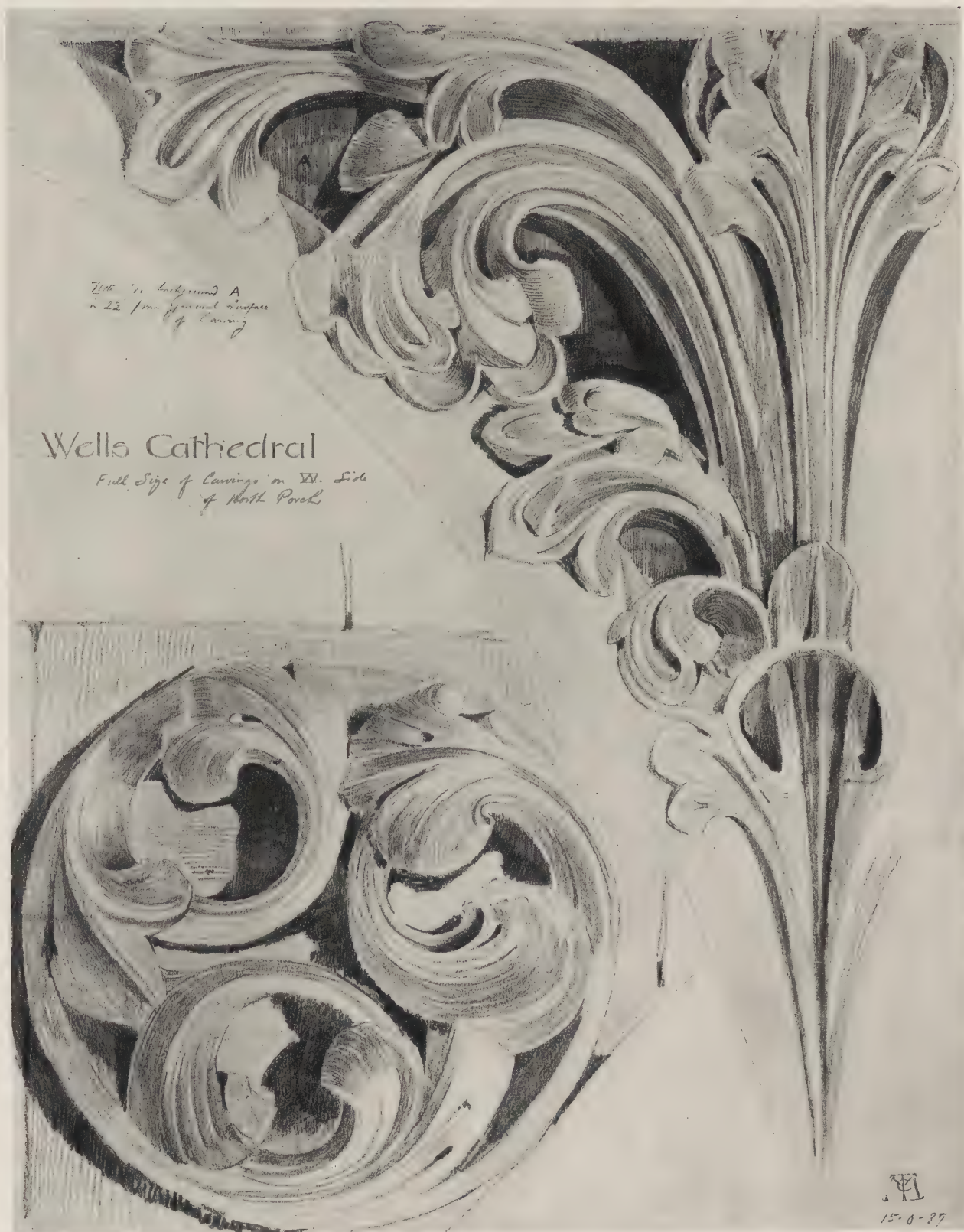
This constant application, covering as it had several years, with very little intermission for activities of a less serious nature, resulted unfortunately in a break in his health. Switzerland was recommended but, after spending some time there taking the "cure" MacLaren determined to find some place where curing and practicing his profession need not be incompatible. This resulted in the state of Colorado obtaining the services of a well trained young



PEN-AND-INK DRAWING BY T. MAC LAREN  
CAPITAL, SOUTHWELL CATHEDRAL

TRUE





Wells Cathedral

Full Size of Carvings on W. Side  
of North Porch

PENCIL DRAWINGS BY THOMAS MAC LAREN  
CARVINGS FROM WEST SIDE OF NORTH PORCH, WELLS CATHEDRAL





PENCIL DRAWING BY THOMAS MAC LAREN  
TORCH HOLDER, PALAZZO DEL MAGNIFICO, SIENA

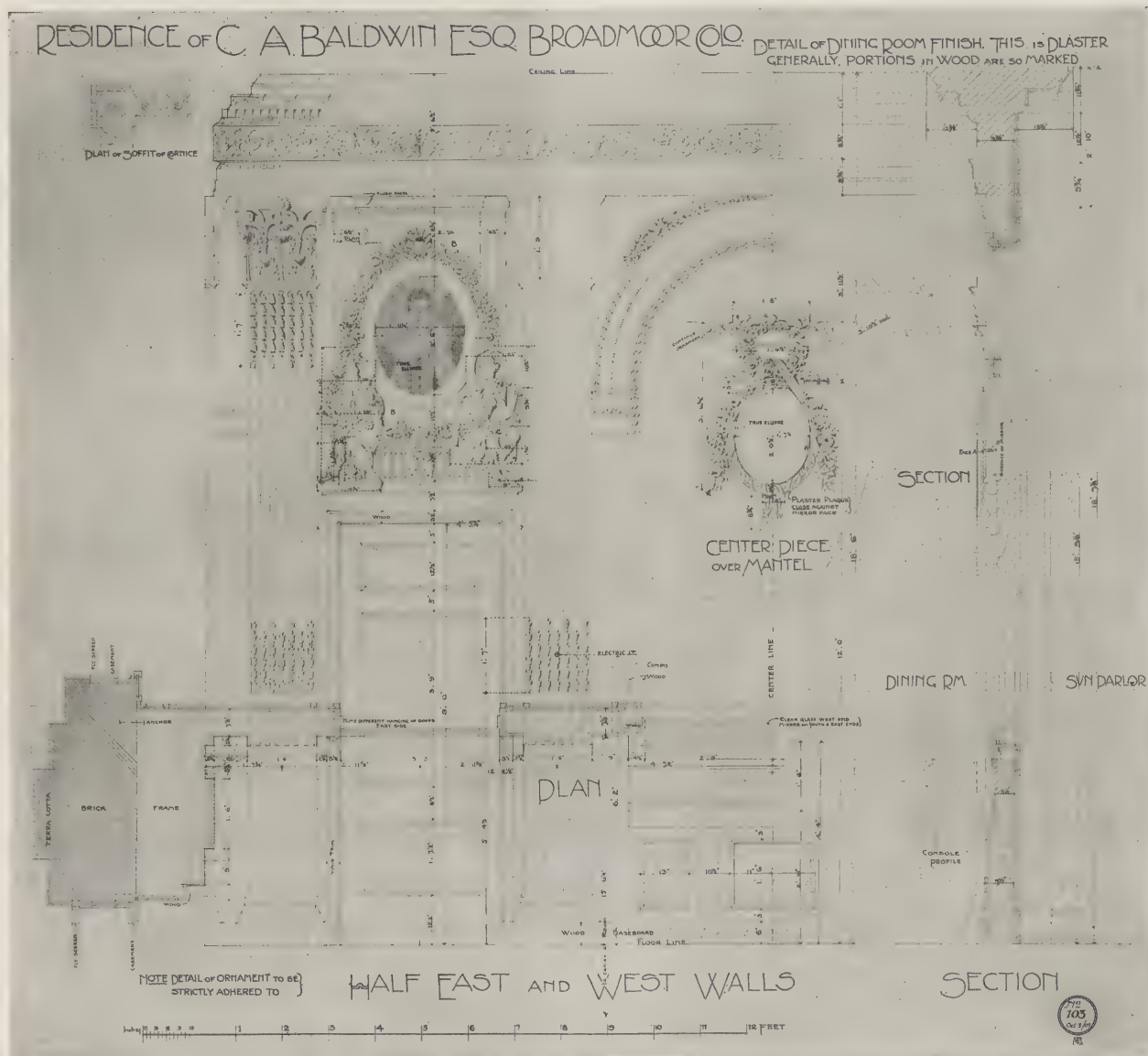


PENCIL POINTS



PENCIL DRAWINGS BY THOMAS MAC LAREN  
CAPITALS, CHURCH OF THE BADIA, FLORENCE





DETAIL DRAWING, DINING ROOM, RESIDENCE OF C. A. BALDWIN, ESQ., BROADMOOR, COLORADO  
DESIGNED BY THOMAS MACLAREN, ARCHITECT

architect eager to externalize a knowledge he had been so persistent in getting.

After the intimate life of Europe, where the arts of man display themselves so liberally and where inspiration or precedent need never be around the corner, the thought of western prairies undoubtedly caused that sinking feeling which Robert Louis Stevenson speaks of in his book "Across the Plains". Fortunately for his art, and subsequently his clients, MacLaren found Colorado Springs a delightful city. Nor was he a pioneer in his profession, for others had preceded him in search of health and on finding it had left their architectural marks. Notable among these was E. C. G. Robinson, a native of New England who introduced some fine colonial work to the west. Willard B. Perkins, another architect, left the major part of his fortune

for the building of Perkins Hall of Colorado College.

The city is situated about half way between the coasts, has an altitude of six thousand feet and a cosmopolitan population, including many people of ability and wealth attracted to the region by its remarkable beauty and favorable climatic conditions. It is really unique and with a few other places enjoys the distinction of being a rendezvous, at some time or another, of almost anyone we care to meet.

Colorado was so named by the Spaniards because of the reddish color of the soil. They settled early but have left comparatively few traces of their sojourn in this state. The tradition perpetuates itself rather strongly however (and, one might be tempted to add, rather badly) in the numerous Spanish



PENCIL POINTS



COTTAGE AT ST. MORITZ, SWITZERLAND



HUT AT MALOJA, SWITZERLAND

WATER COLOR DRAWINGS BY THOMAS MAC LAREN





Centre Portion of Rood Screen  
(from Choir)

PEN-AND-INK DRAWING BY THOMAS MAC LAREN

DETAIL FROM SOUTHWELL CATHEDRAL

bungalows that have grown like mushrooms, but there are, fortunately, some well conceived churches and chapels in the style. The influx of people with different backgrounds and social customs has resulted in the perpetuation of a variety of architectural styles and MacLaren was enabled to display his intimate knowledge of Gothic in a way that caused the following comment by Ralph Adams Cram in *The Architectural Review*:

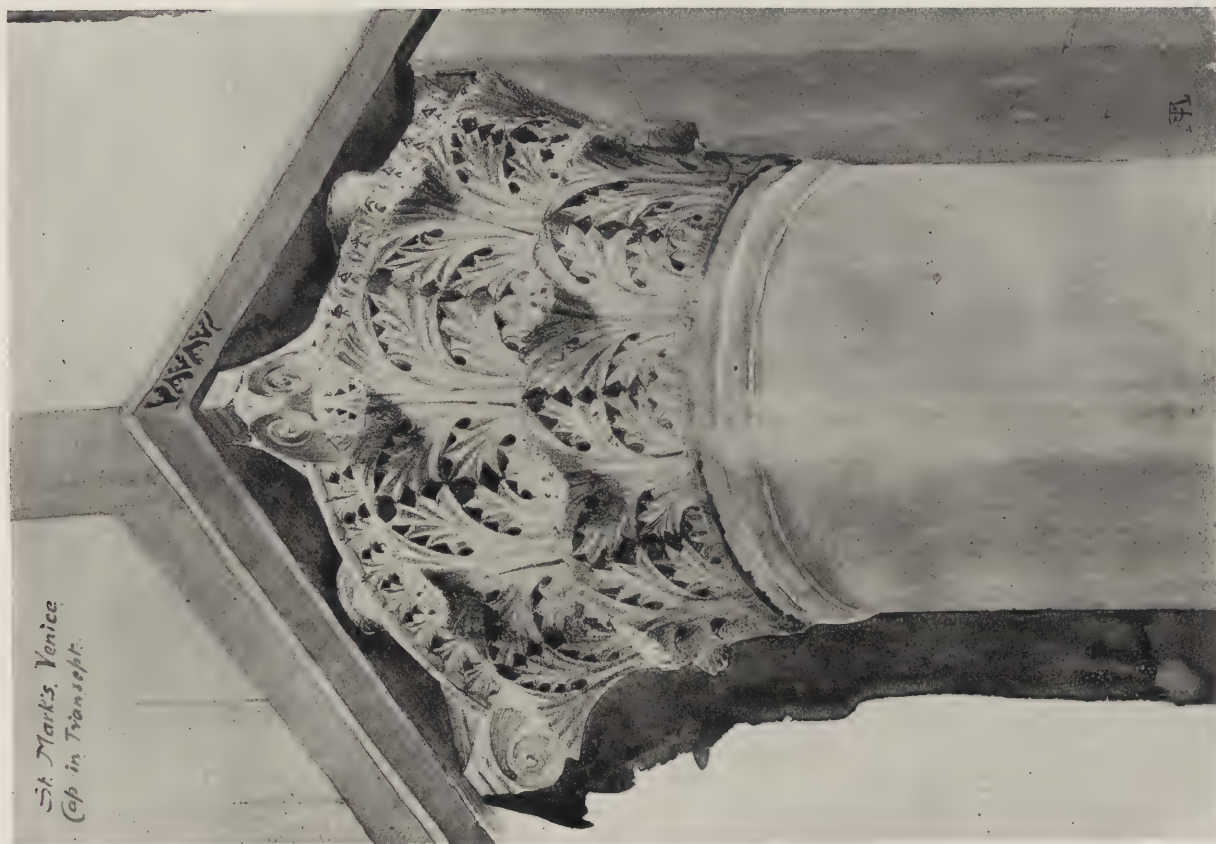
"In *The American Architect* of January 28th (1905) two most admirable little churches are printed, both by Mr. Thomas MacLaren and both in Colorado. These churches are successful in a most unusual degree, and, small as they are, are vastly

encouraging to those who anticipate a continuation of the logical development of church building in America."

A few years later MacLaren built the City Hall of Colorado Springs, a classic design of beauty and dignity. This appears in *The American Architect's* Golden Anniversary number of 1926 as an example of the advance in Municipal Buildings in the decade 1896-1906. His other work, which includes a fine Spanish chapel and an early Elizabethan residence, shows the same high quality.

In 1919 views of the C. A. Baldwin residence, which is modeled after the Grand Trianon at Versailles, were exhibited in the Royal Scottish Acad-





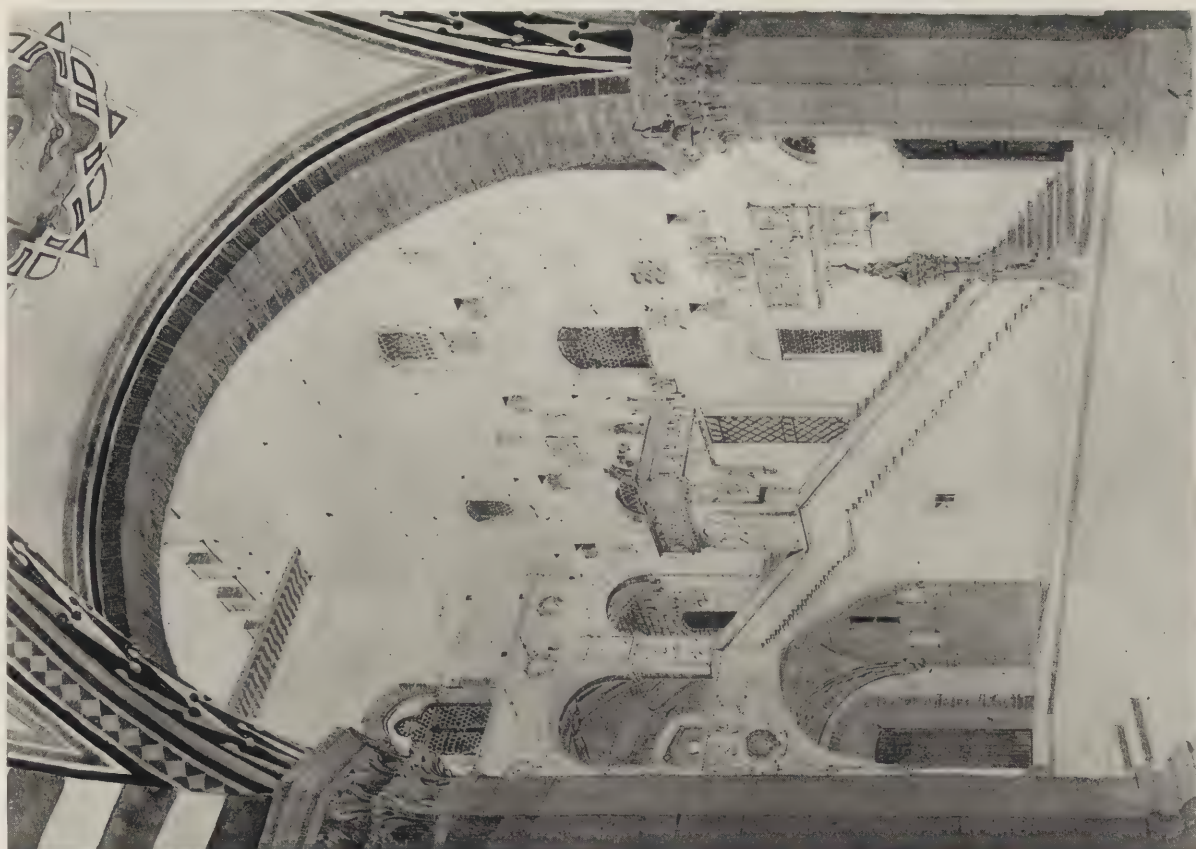
WATER COLOR, CAP IN TRANSEPT, ST. MARKS, VENICE



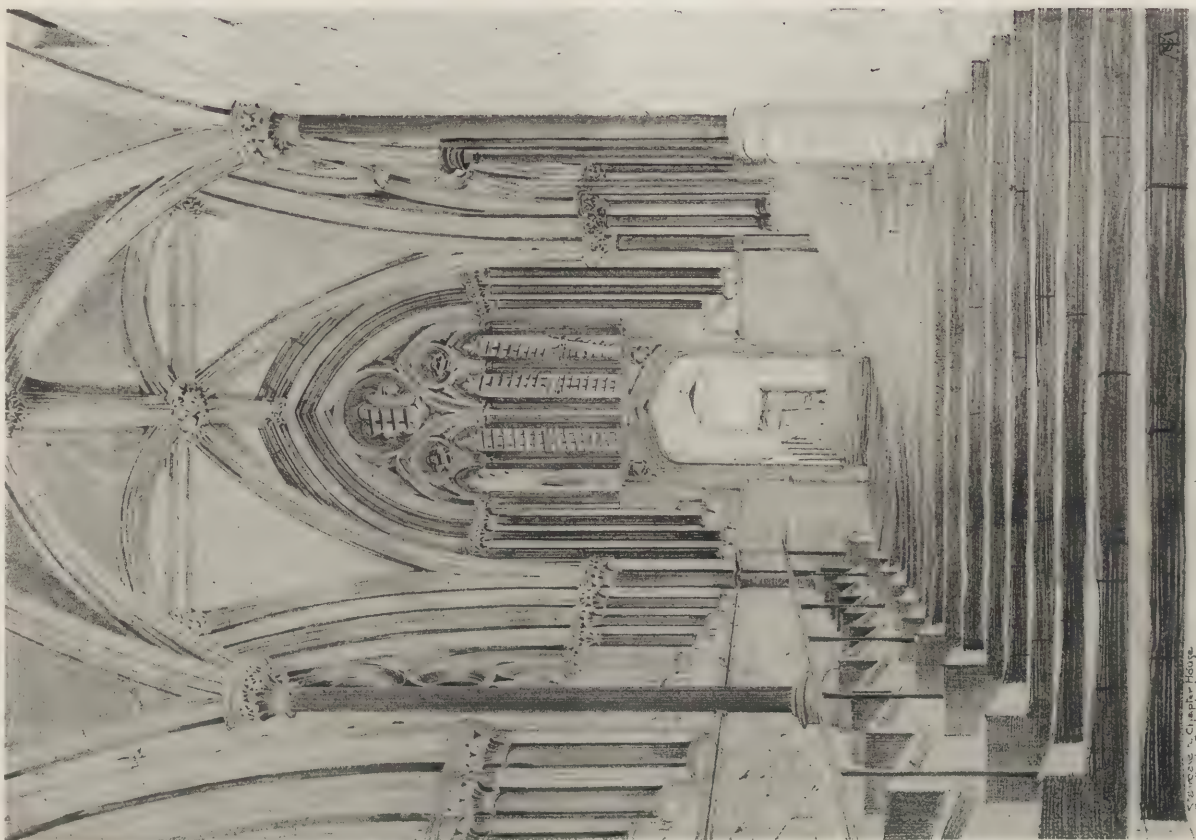
PENCIL STUDIES, THE FLORENTINE BOAR, FLORENCE

STUDENT DRAWINGS BY THOMAS MAC LAREN





COURTYARD OF THE BARGELLO, FLORENCE



STAIRCASE TO CHAPTER HOUSE, WELLS CATHEDRAL

STUDENT DRAWINGS BY THOMAS MAC LAREN





DRAWING IN WATER COLOR BY THOMAS MAC LAREN  
PORTAL OF SANTA MARIA MAGGIORE, BERGAMO





STUDENT DRAWING BY THOMAS MAC LAREN

ARCADE IN CLOISTER OF CERTOSA, PAVIA



## PENCIL POINTS

emy and at the request of Sir George Washington Browne, president of the Academy, became part of the permanent collection of select examples of modern architecture in the College of Art, Edinburgh.

The proposed design for the Grace Church, which is shown at the bottom of this page, is a vigorous well studied piece of Gothic art. The transition from the small to the large package via the tower gives an able solution of a problem that is never easy. The winter rendering is interesting, clearly showing as it does the architecture through an arabesque of trees. It is reminiscent of the designer's earlier sketches and has the same sureness of touch.

A final word or two about these earlier sketches. Although it is a primary requisite that sketches should speak for themselves, an analysis of those that particularly appeal to us is always constructive. It is thus that we deduce the underlying principles. MacLaren's sketches stand out very definitely as having been made by an architect,—one familiar with the surface behind the surface. His intimate knowledge of ornament in its three dimensions and of the structural forms that support the mass has enabled him to present his subjects vigorously. His subjects are well seen. He interprets rather than dramatizes and is never dependent upon extraneous forms or "accidental" effects. His early application to freehand drawing from the cast and knowledge of perspective shows itself strongly in his work—mainly by producing results that appear deceptively easy—the acquired becoming instinctive. His water colors show an appreciation of the medium and his intimate handling of some of the things he did while in Italy and when "curing" in Switzerland is delightful.

It is interesting to hear what others have said

about this work,—men whose contact with much student work has made their opinions worth while. In 1924 fifty-seven of his sketches were exhibited in the Architectural Department of various Institutes in the East. Mr. William Emerson, head of the Department of Architecture of the Massachusetts Institute of Technology, wrote:

"Your sketches are here, and exhibited to our very great satisfaction. . . . I wish to thank you on my own behalf and also on behalf of many other teachers and architects for the quality and interest shown in your sketches. They are an excellent example of what a student might be asked to do and the thoroughness with which you have studied your subjects is exactly the point of view we should be glad to encourage in these days when patience and thoroughness seem to be discontinued for speed and cleverness."

From Lester B. Pope of Pratt Institute, Brooklyn, we have:

"The drawings are very splendid indeed, and I don't know that I have ever seen a finer collection of more carefully executed architectural drawings. . . . It is from this kind of work that students receive real inspiration. . . . I know of no exhibition that has come to the Institute during the past twenty years in which I have been connected with it that has been of such great help to, or has been more admired by the students of the Department of Architecture than your set of pencil drawings. We consider ourselves very fortunate indeed in having been able to exhibit them."

The West has undoubtedly done MacLaren a good service in the way of health but he has more than returned it by his inspiring work.



STUDY FOR GRACE CHURCH, COLORADO SPRINGS, COLORADO

DESIGNED BY THOMAS MAC LAREN, ARCHITECT





THE PLAZA MAYOR, SALAMANCA

THIS IS SAID TO BE THE FINEST SQUARE OF ITS KIND IN SPAIN. EACH FLOOR ABOVE THE FIRST IS GRACED BY WROUGHT IRON BALCONIES.

## WROUGHT IRON PRECEDENT, V

### SPANISH IRON WORK

*By Gerald K. Geerlings*

EDITOR'S NOTE:—The four articles appearing in the June, July, September and October issues introduced the subject of wrought iron, discussing the characteristics peculiar to the material and the type of ornament best suited to forge work. This installment deals more particularly with Spanish usage in lesser works.

IN SPITE OF THE thousand-and-one wonders of our rubber stamp, adding machine, and time clock civilization in which we take so much righteous pride, we seem to create curious valuations. The appraisals may be graced by gold seals and flourishing signatures, but compared to previous standards how amazing they are! As an example, the day-laborer has been elevated from his unskilled state of being an overworked pedestrian to the realm of a five-day Packard commuter.

Not so different is the case of wrought iron. In Europe it must content its plebeian self with being but a part of the melee of pungent odors, vagrant goats, and poster remnants announcing the last bullfight of the season. It is so much taken for granted that even the camera of the new and zealous Bachelor of Architecture scorns to expose its retina. But in these United States the wrought iron of humble lineage has been raised to an auroral prominence in the houses of the mighty and banks of the rich.

It is unfortunate for wrought iron that it has become lionized. In being "dolloped up" in Lord Fauntleroy frills it is forbidden to play with the village blacksmith. Devotees, on returning from its native Spanish haunts, have given their chief cognizance to the majestic *rejas* of the cathedrals, while on the other hand, the lesser lay brothers outside the domain of incense have not been deafened by the din of architectural clarions. The architectural memories of designers have so tenaciously clung to the glories of the monumental, rather than the charm of the domestic wrought iron, that many an iron design might have been elected had it been composed of less aristocratic constituents. This is no unnatural phenomenon of course, for when was it not easier to blissfully remember the promenading Coles Philips' ads of Fifth Avenue rather than the lengthy, bespattered aprons of Tenth? The difference lies in the entourage, not in the potentialities.

For example, take Leon. May the Gods of Travel



PENCIL POINTS



FIG. 1, HOUSE AT LEON SHOWING TYPICAL LOCAL FEATURES



*Photos by G. K. G.*

FIG. 2, GRANADA, HOUSES ALONG THE DARRO

*In upper view note tile roof, corbelled cornice, wrought iron railings and loggia with wooden columns and corbel. Below, note fondness for some form of wrought iron in nearly every wall opening.*



WROUGHT IRON PRECEDENT



FIG. 3, RONDA, TYPICAL STREET



*Photos by G. K. G.*

FIG. 4, RONDA, TYPICAL STREET

*In both views note characteristic roofs, whitewashed walls, and wrought iron; also biped and quadruped citizens. The grilles very definitely add sparkle to the scenes.*



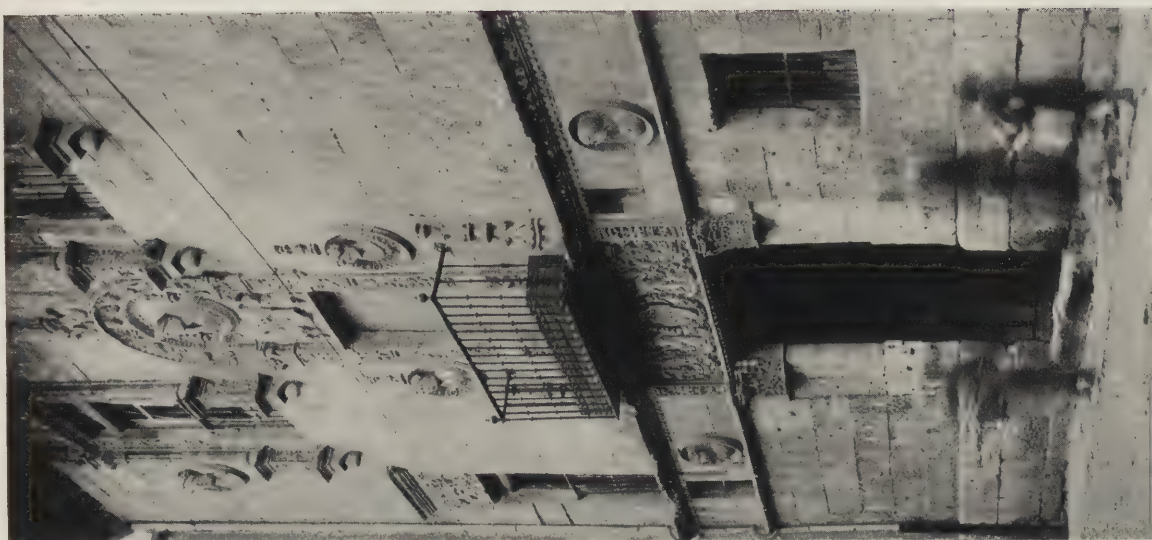


Photo by G. K. G.

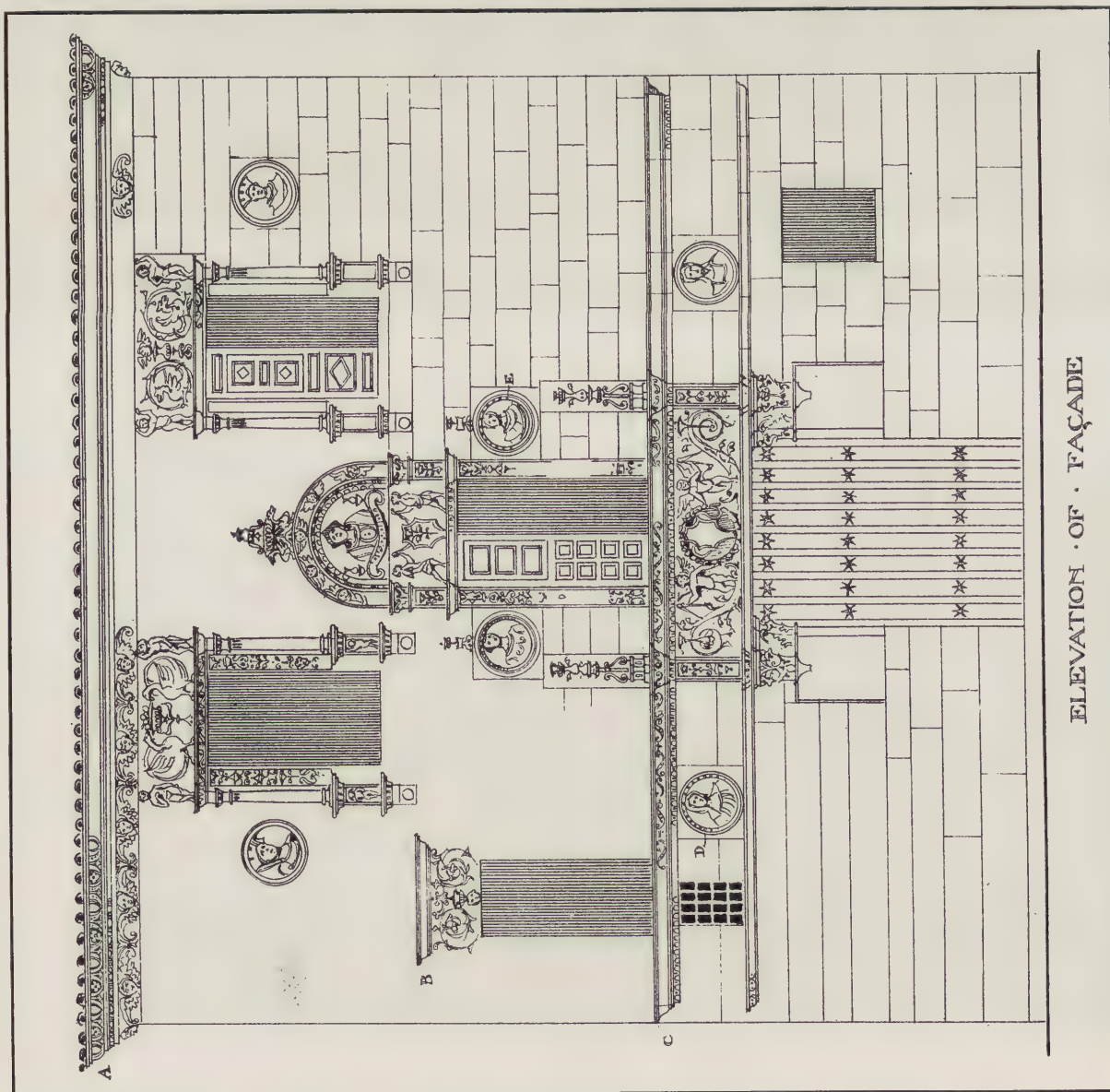


FIG. 5, SALAMANCA — THE CASA DE LAS MUERTES  
BUILT BY DON ALFONSO DE FONSECA IN THE BEGINNING OF THE XVI CENTURY

*Drawing from A. N. Prentice*



Agencies be praised that there are no excursions there, and may They confine its visitors chiefly to long-suffering architects who uncoil undaunted from the effects of a day's Toonerville Train cramp! The wealth of beautiful iron in the Cathedral delights the architectural eye—and yet appalls. For when will an imaginary client cross the dotted line threshold, to be induced to dwell with such an epic in iron as enriches coro, ambulatory, and side aisles? It is some consolation to drown such a reverie amid the less majestic revels of that gem of Romanesque marvels, the Collegiata di San Isidoro. Though the architectural soul will be momentarily distraught by the interior baroque abominations (now being removed that the original work may be restored), it will be soothed by the iron grilles which are not too million-dollarish to make a client quail. One such grille with an all-over design from the apse of the Collegiata has been previously illustrated.

About halfway between the Collegiata and the usual hotel meat, onions, meat, wine, and more meat, are rows of unassuming naive houses, as in Fig. 1. How could these deport themselves like venerable citizens of the erstwhile all-powerful Leon, without wrought iron rails? What fun would the good housewives have in life without balconies? If one is to successfully gossip it is needful to rush to full length windows to see all that happens in the world below, and if it be without the safety factor of a rail, what joy and security does life hold? Surely nothing could so well serve as a substitute clothesline on which vermilion petticoats, grey (once white) towels, and a gay galaxy of colored miscellanies vie for honors. With our Anglo-Saxon ideas of propriety these advantages are nil of course, but at least we must admit that it is both an adaptable and happy notion to fasten rings to the top rail, into which flower pots fitly repose. Another item about the simple façade (if it dare assume such a term) of the Leon-oxen house, is that iron rails not only add the vital interest supplied by the variegated company of greens, reds and yellows, but prevent the house from presenting an entirely bald face, not only bulky in scale but wobbling on the dark shadows created by the loggia. The little balconies maintain vertical axes which center and link the windows with the openings below.

The houses at Granada along the Darro, Fig. 2, would present a dot-and-dash code of window-stucco-window-window-stucco, if the wrought iron balconies did not come to the rescue. A noteworthy feature is that the primary reason for their existence is not a stagy one; people who can afford meat only once a week do not decorate their houses with grilles so that some aesthetically afflicted architect can groan with joy at the composition. First floor windows, it will be observed, wear full-length grilles, while those above don them to the knees. This is very reasonable since the first floor ladies might be

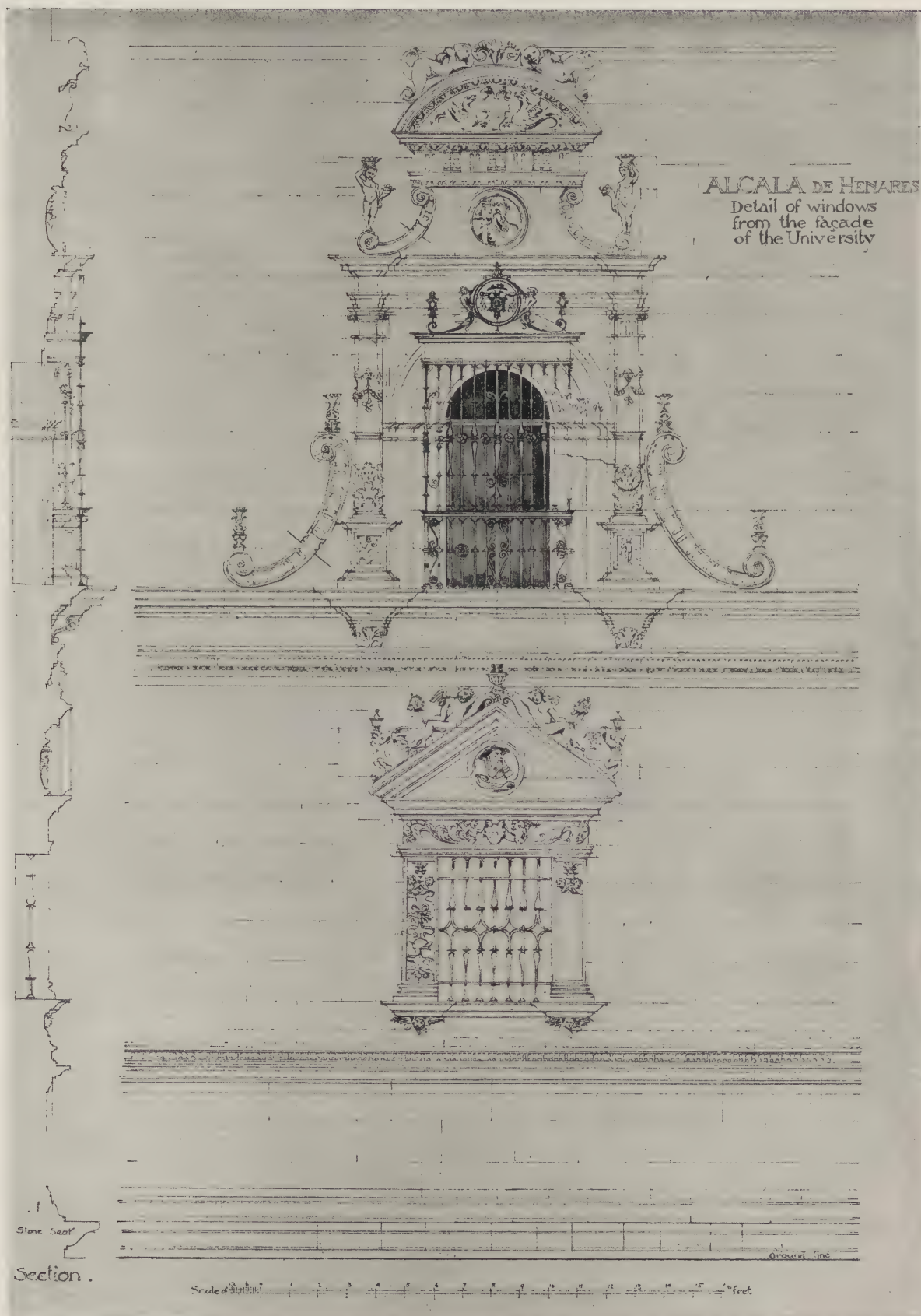
troubled by unwelcome and inquisitive males, while on the upper floors what woman has not a right to be curious about all men—particularly at the safe distance of an upper balcony?

It must not be assumed that we are advocating that American windows of all genera be attired with grilles or balconies. However, we cannot refrain from observing that if the Spaniard had the excellent sense to transform a practical and necessary feature of his simple domicile to a handsome advantage, why should we with our world wealth and imagined taste insist on barricading ourselves in our cliff dwellings (sometimes rightly termed "apartments") behind a maze of maliciously ugly fire-escapes. Goodness knows we need them, but why the insistence that they be hideous! Perhaps the fire-escape designer is a poor, underpaid individual, a victim of the sad maxim that "art follows the dollar". Should we deign to try to resuscitate the fire-escape no doubt we could work as miraculous changes in it as have visited the automobile. Fifteen years ago the latter was as good to look upon as the average swoops in a solid geometry diagram. Designers for motors were paid "real" money, it is whispered, and presto, the humorous old fender curves got themselves and their confrères straightened out in a relatively short space of time, so that at present the automobile presents a fleet, smooth-mannered physique. There are no "cribs" within easy access, but surely someone some day will come smilingly along with philanthropic zest, brilliant ideas, and a fire-escape design which will make his alma-mater so famous she will flourish without a rival.

The well-known Casa de las Muertes, Fig. 5, would certainly appear less sparkling without the wrought iron rails. The façade is usually in the shade so that without the etching-like, clean cut definition of the iron work it would miss much of its enhancing contrast of buff stone with inky spindles. The house to its right struggles not to be outdone by its neighbor in any grille competition. It must be admitted that its first floor window grille looks rather as though it were installed and designed to decrease the burglar insurance rate.

No series of photographs illustrating practical and handsome employment of wrought iron would dare be guilty of omitting views of Ronda. Several have appeared earlier. Figs. 3 and 4 show what merry things can happen when you combine southern Spanish sun, moulting scales of whitewash and enough grilles to discourage the huskiest of burglar unions. There are inky voids of large dimensions brought into harmony of scale with minute ones by subdividing large openings with the highlights of innumerable grilles. It is not difficult to see that minus its iron salvation Ronda might descend like a fallen angel into the same abyss with American real estate developments, and be given some such





Drawing from A. N. Prentice

FIG. 6, ALCALA DE HENARES, DETAIL OF WINDOWS AND GRILLES



**SECTION**

FRIEZE ALL GILT EXCEPT RED ON FIGURES

MEDALLION DOTTED

ALL BARS ARE ABOUT  $5\frac{1}{3}$ " O.C.

TOP BAR OF GATE.

A

B

C

E

D

$\frac{1}{4}$ " SQUARE

$1\frac{1}{4}$ "

GILT

$1\frac{1}{4}$ "

$1\frac{1}{2}$ "

GILT BALLS

BASE SAME AS "B" & "C"

BASE SAME AS "A"

UNIT REPEATS ONCE BELOW  $\phi$

$1\frac{1}{8}$ "

$1\frac{1}{4}$ "

$\frac{5}{8}$ "

$3\frac{1}{16} \times 1$ "

GILT

$5\frac{1}{8}$ "

$1\frac{1}{4}$ "

DIAGRAMMATIC  
PLAN & ELEVATION

ALL GATE MEMBERS NOW CEMENTED IN FLOOR, BUT FORMERLY PIVOTED TOP & BOTTOM ON BAR "E". TOP BAR OF GATE WAS  $\frac{3}{4}$ " VERTICALLY &  $2\frac{1}{2}$ " IN WIDTH.

8'-6"

6" $\frac{3}{4}$ "

AISLE SIDE

5 $\frac{1}{2}$ "

FRIEZE - SEE DETAIL ABOVE

4'-9 $\frac{1}{2}$ "

1" SQUARE BAR, NO BASE

FORMER GATE

D B C B A C B C B C B C E D B C B A

1" SQUARE BAR, NO BASE

S SCALE: 3" = 1'-0"

FLOOR

SCALE.  $\frac{1}{4}$ " = 1'-0"

GKG

[ 733 ]



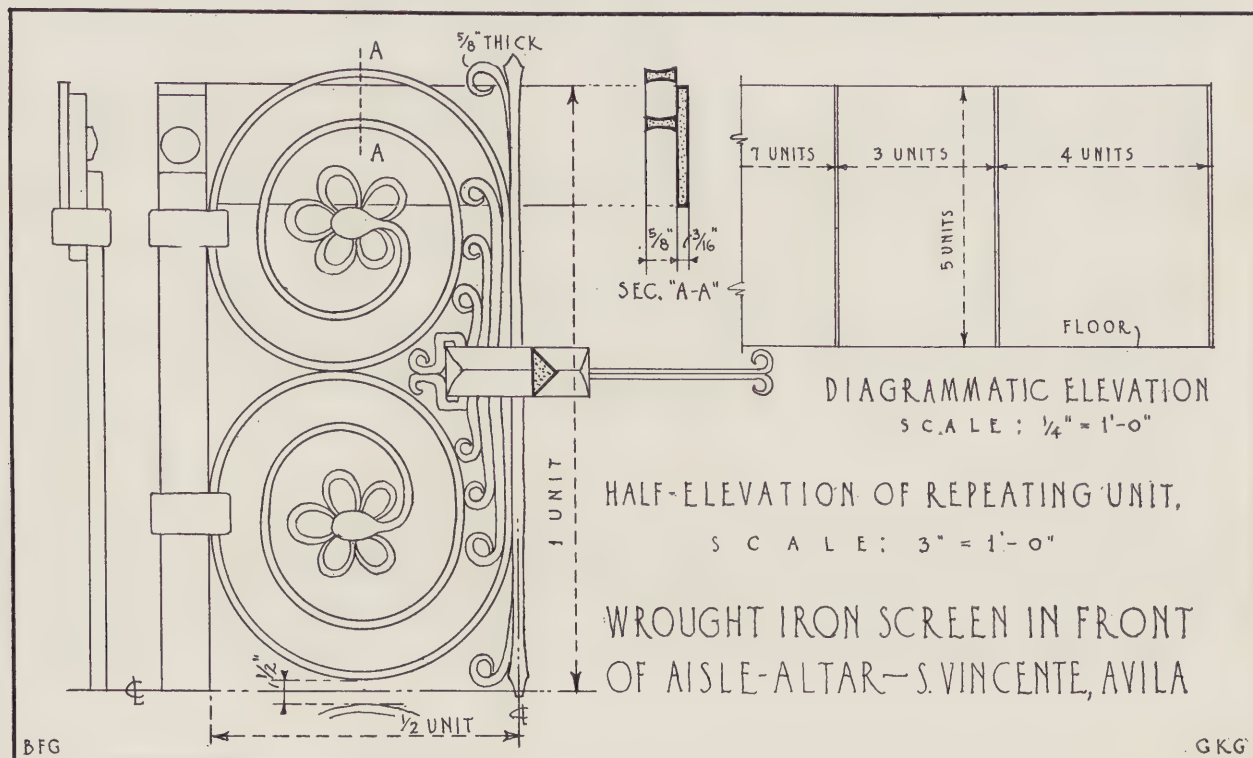
name as Imported Gables or Whitewash Sights.

The window treatment of the University, Alcala de Henares, shown in Fig. 6, appears to set a worthy precedent in design by cajoling the scale of the window opening to correspond to that of the surrounding ornament. By endowing the wall with the privilege of being the only unbroken surface, and thereafter not issuing a challenge, it becomes the better foil for concentrated ornament. A fruitful and fascinating architectural diversion consists in analyzing Spanish grilles in relation to their settings, noting the elements which contribute toward a thoroughly satisfying composition. None look as though the designer mechanically turned thumbworn pages hunting down an example to crib, but register instead an intelligent inquiry: when to use an iron motif in opposition to a stone arabesque, when to employ a frieze in harmony and scale, when to insert a horizontal member and make it "line up," or when to frankly create an independent unit for contrast. Spanish examples of iron work have a convincing air of always contributing definitely and thoughtfully, without a bookish look of existing only for the sake of tradition.

Among treasure-houses stocked with wrought iron inspirations, which are not overwhelmingly difficult to draw and not too impossible to imagine any client actually paying for, the Cathedral at Avila has few peers. At the present writing there unfortunately buzzes roundabout an over-anxious "dog-beater", as his colloquial Spanish nickname would be translated, whose chief duties seem to be: (1) to tear around with a moth-eaten, brilliant cloak floating behind, (2) to display an equally fiery temper

toward curious-minded architects, and (3) to insulate these untiring ministers of T-squares from the beatific joy which radiates from the wrought iron masterpieces housed in the Cathedral under his irritable supervision. If it be possible to evade this custodian, or purchase investigating privileges by parting with the proper proportion of one's pesetas, there is a variety of altar rails, low grilles as in Fig. 7, and design suggestions in ecclesiastical accessories sufficient to crowd a volume. The example illustrated from the ambulatory grille presents in a pleasurable manner some of the characteristic Spanish features: the split bar, the twisted bar with refreshing gyrations (and supercraftsmanship) a propensity for verticals, a retroussée frieze, and an arabesque applied to the pilaster face. The capless bars B and C, as well as the simple, unadorned capitals of E, are in severe contrast with the richly embellished ones of A and D with their grafted leaves. The bases are all in extremely good taste, being simple in execution and obviously wrought in character.

The all-over design of the aisle-altar grille in S. Vincente, Avila, Fig. 8, is an unusual departure from that general type. The vertical is accented by a family of scrolls which fortify the main performer before sending him whirling on his helix career. Where this scroll finally terminates, instead of flattening and metamorphosing itself into an animal's head, it is curiously fashioned into a sort of floral form with individual petals. The solution seems a good one in relating this inner feature with the supporting family of scrolls, and contributes an adequate spot of color where needed.





# THE ROMAN ALPHABET

## ITS ORIGIN AND ESTHETIC DEVELOPMENT

*By Frederick W. Goudy*

EDITOR'S NOTE:—We are indebted to Douglas C. McMurtrie for permission to reprint here, in part, an article which appeared early in the year in *Ars Typographica*, a journal devoted to fine typography. Believing that lettering is of interest to architects and draftsmen as well as to printers we are pleased to present this discussion of one phase of the subject by one of America's leading authorities.

LETTERING, THE UNIVERSAL and most fundamental of all the arts of design, may be said to have its real beginnings in the lapidary productions of the Greeks. Their work was more monumental, but more primitive in idea, than the best of the earliest Roman work, from which, however, it differed little in technical excellence. The early Roman letters came into existence about 2500 years ago, reaching their full development some five centuries later. The early forms are so nearly identical with the Greek letters which precede them that a study of classic Roman capitals may just as well, and quite reasonably too,

many even now show indications that the letters were first carefully outlined or painted in before cutting, afterwards to be filled in with the same color used in the preliminary painting. Possibly, actual patterns of the different letters which could be marked around were used for the preliminary outlining, a conclusion that is suggested by the accuracy that is characteristic of inscriptions cut in bronze or stone. Those letters cut in bronze were occasionally made more distinct by filling in the incised lines with white lead. Sometimes, on large public monuments, separate letters of bronze or lead were affixed to the

ΚΑΙΤΑΣΓΕΡΙΤΚ

GREEK LETTERS FROM INSCRIPTION IN TEMPLE OF ATHENE POLIAS

THIRD CENTURY B. C.

begin with those cut in stone in the first years of the Christian Era, a time when such inscriptions had reached already a high degree of excellence. These early letters, moreover, are sufficiently remote and fundamental to furnish the essential shapes upon which to base this brief survey of their progress and subsequent development into the MS. forms in use at a time immediately preceding the invention of movable types. It is from the Roman capitals of two thousand years ago that all the letters employed by the scribes as well as the type letters of the printed books of today are derived. To trace the steps leading to them, rather than to present a history of the earliest expressions of written speech, or make any study in epigraphy or paleography is all that is here contemplated.

For nearly two thousand years the Roman capital has held supreme place among all letters for beauty and character. The Italian type-founders in the fifteenth century sought out fine examples in MSS. as models for their minuscules; for their majuscules they studied and attempted to reproduce the capitals from the monumental Roman inscriptions. Their fine traditions have largely been lost. Examples extant show that the earliest forms of the lapidary Roman capitals were roughly shaped and without the thick and thin strokes that add materially to their legibility and distinction. In the first century B. C. the increasing practice of cutting monumental inscriptions led to more highly developed forms, and

stone with rivets, and in certain instances it is only by the positions of the rivet holes remaining after the letters forming the inscription had fallen that it has been possible to restore the original text.

Of all the examples remaining to us, the inscription at the base of the Trajan Column at Rome, cut about A. D. 114, is probably the finest in character. This column, one hundred forty-seven feet high, erected by the Senate and people of Rome, is composed of 34 blocks of marble and is covered with a spiral band of bas-reliefs illustrating the Dacian wars, almost the only extant record of these wars. When first erected it was crowned by a statue of Trajan holding a gilt globe, but the statue had fallen long before Pope Sixtus V replaced it with the statue of St. Peter, which now surmounts the column. The base forms a sepulchral chamber intended to receive the Imperial remains, and it is believed by some that the ashes of the Emperor, in their golden urn, even now might be found buried in front of the column erected during his lifetime, as it was the custom to preserve the imperial ashes in such an urn upon an altar in front of the sepulchral chamber. Of the column itself Hawthorne said, "It is a great, solid fact of the Past, making old Rome actually visible to the touch and eye; and no study of history, nor force of thought, nor magic of song, can so vitally assure us that Rome once existed, as this sturdy specimen of what its rulers and people wrought."



SYRIO  
VIATIC

RUBBING BY F. W. GOUDY OF INSCRIPTION IN CHURCH OF S. ANASTASIA, ROME, 1261 A.D.

*Showing unusual form of inscripitional "Y," a letter of late importation into the Latin, and originally used only in words borrowed from the Greek*



An examination of the letters composing the inscription at the base of the column shows that the vertical, horizontal, oblique and curved strokes vary considerably in thickness, and with no absolute regularity; they show also that the swelling of the curves occurs above and below centers, according as they are on the right or left sides, and that the letters vary considerably in the matter of individual widths.

This variety in width of lines was in no way made necessary by any demand of material or of cutting tool, but since the natural handling of pen or brush

the basis of their alphabet; the spaces required to express the conventional forms might easily have varied in the same way, as the abstract symbols themselves, no doubt, kept more or less closely to the varying widths of their pictorial originals. Therefore, the early Greek and Roman stonemasons, heirs to the genius of Phoenicia, produced letters as of forms whose widths were already established for them; these they modified or altered to their own use only just sufficiently to meet the exigencies of the technical requirements of the tools employed in their production. Nevertheless, neither

# ABDEGNRS

FROM TRAJAN COLUMN, CUT ABOUT 114 A.D. (SEE PLATE XLII)

will actually produce just such variety of line, it is reasonable to assume that the use of pen or brush influenced very strongly the shaping of the lapidary characters, if indeed they did not really determine the actual forms. The shapes they take in general and their proportions are, therefore, those of the pen-drawn letters, but their character is that of the cutting tool used to produce them, a significant point to bear in mind.

It is frequently remarked of the Roman capitals that there seems to be no good reason for the ungainly contrasts in their various widths. To the writer, however, there is a fundamental reasonableness in their peculiar proportions (of which varying widths are an essential feature), that marks for him a close relation between these capitals and their far-off Phoenician originals; nor are those proportions and widths merely a matter of conscious or elaborate design. There is, too, a profound consistency in the Roman alphabet *as a whole*—a close relationship between the individual letters that compose it, due to the following of a sound tradition by ancient craftsmen free from conscious effort toward beauty. These craftsmen were much more anxious for consistency in the form and appearance of their work than they were concerned with the question of widths of individual letters. (Note illustration of Trajan letters.)

The earliest syllabic or alphabetic signs that evolved from the Egyptian pictographs by a process of conventionalization and simplification retained, to a certain extent and for a long time, traces of their pictorial origin.

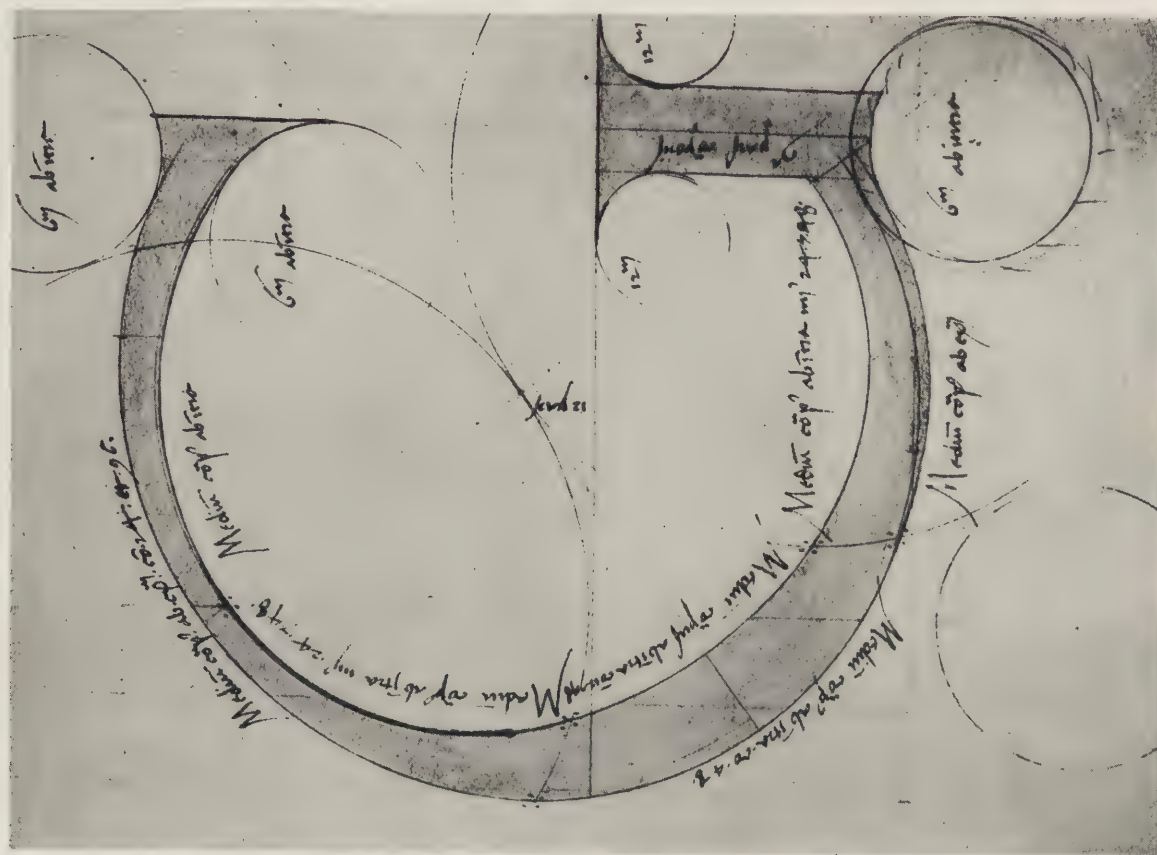
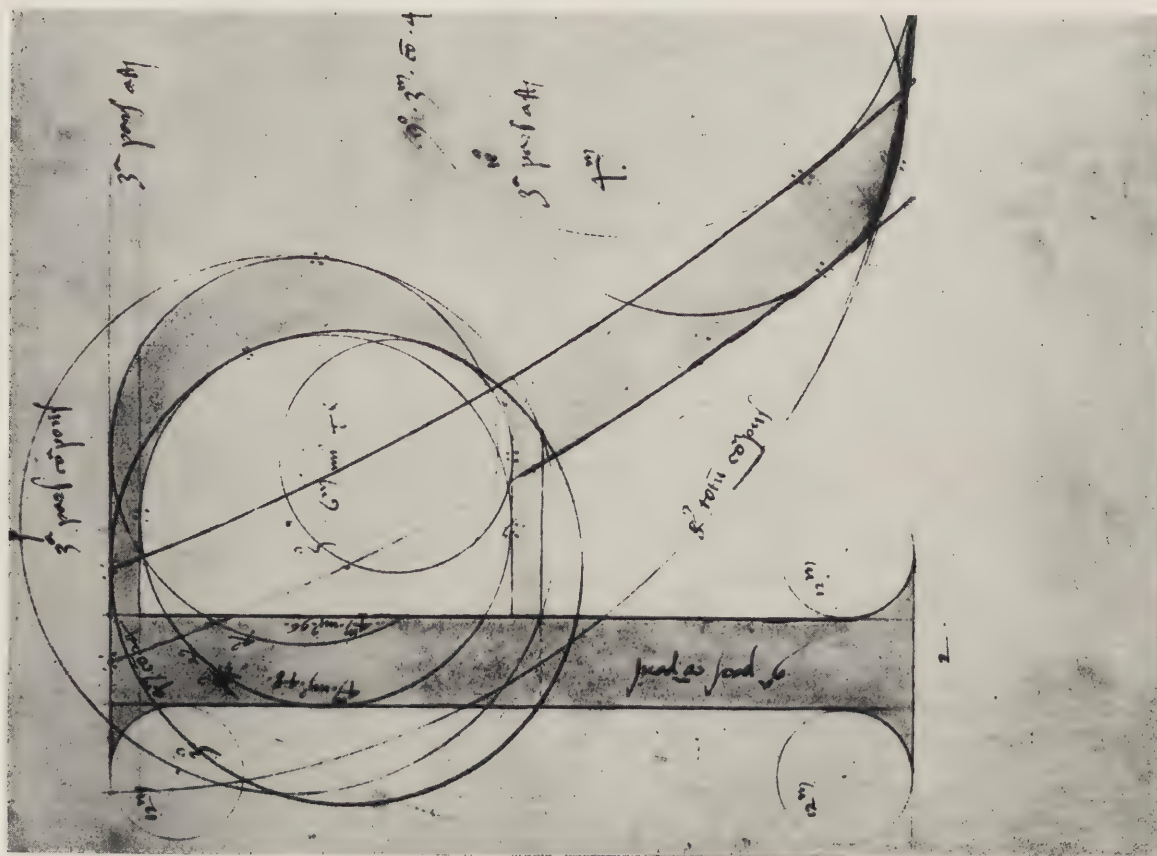
The spaces required for the representation of the different objects employed for the pictographs naturally varied just as the actual objects themselves varied in proportion or shape; the more abstract symbols which grew out of the pictographs through rapid writing and abbreviation became purely conventional forms whose pictorial significance was eventually lost or forgotten. These forms became traditional and were adopted by the Phoenicians as

the materials in which they worked nor the tools employed for cutting, had, at any time, more than a modifying influence over the actual shapes of the letters themselves—forms with which the workmen were already familiar and which under their hands gradually developed, by imperceptible refinements, into letter-forms especially suitable to the tools employed. But actually there was no material change or loss of their original or generic characters, the essential shapes, in which varying widths were an important detail, remaining practically unaltered.

The writer's theory seems amply borne out by a comparison of the early Greek letters with their Phoenician originals, the Greek forms, in nearly every instance, following closely the widths of the characters from which each was derived. But whether or not the Phoenician characters follow, likewise, in every instance, the widths of their Hieratic originals, or the Hieratic characters follow the widths of the pictographs they conventionalize, the writer is not able to ascertain, the materials for a careful examination of all the transitional forms not being within his reach.

Moreover, the process of modification from pictures to letter-symbols covered a long period: nor did the forms, at once, assume fixed shapes, but varied with the conceptions of every different maker of them, the nature of the tool he employed, and the material on which he fashioned them. The forms themselves became trite and ordinary, and, as handed on and on, gradually grew away from their pictorial forebears until finally they no longer bore any resemblance to, or even suggestion of, the forms that inspired them, their pictorial significance lost and too deeply buried in oblivion to make resurrection easy. After all, it is not really necessary to press the theory beyond the earliest Phoenician alphabet (1000 B. C.), since Phoenician letters seem to have been the actual final literal development of the constantly changing ideographic symbols through the Hieratic and Demotic writings; and it is largely on the widths of those forms that the writer bases his





TWO LETTERS FROM A MANUSCRIPT ALPHABET OF ROMAN CAPITALS ATTRIBUTED TO LEONARDO DA VINCI  
PROBABLY DRAWN ABOUT 1480



# THE ROMAN ALPHABET

suggestion, in the absence, as far as he is aware, of any specific statement elsewhere regarding the matter.

In both Greek and Latin paleography large letters are called "majuscles" and are of two kinds. First, Capitals, originally cut in stone and formed chiefly by strokes meeting at angles; avoiding curves except only where the actual shapes of the letters absolutely required curves, as angular characters are more easily cut in stone or metal; second, Unicals, which, when written, are a modification of capitals, curves being freely introduced since they are readily inscribed with a pen.....

The chief difference between inscriptional characters and MS. letters lies in the fact that the stone-cut forms are compound, that is, they are built up, a part at a time, and not made by single sweeping strokes of a pen or brush. They were probably designed *in situ* by a master writer, who was able, by incessant practice with a flat stiff brush, to draw or write rapidly, the actual cutting of the letters probably being left to one accustomed to work in stone.

Minor refinements, and more careful cutting of the curves and serifs, gave a quality later carried naturally into written forms—the square capitals of the fourth century MSS. which are merely a pen-drawn variety of the lapidary capitals and retain a strong resemblance to them. Manuscript letters, however, were simple written shapes in which the

varying widths of the lines composing them are in strict relation to the breadth and angle of the pen used, the mere changing of its direction producing striking results in the character and development of the letters. When letters were written with a broad pen or formed by strokes of a brush, the relation of the thick and thin lines was not the result of deliberate thought, but, rather, was the result of a natural handling of the tool employed. No pencil-outlined forms, later filled in with ink or color, can give such a quality of life, variety and harmony as those produced directly and spontaneously.

Our nature seems to appreciate variety, a quality inherent in Roman letters; while more than one-half of the Roman letters are made of straight lines, the others contain curves which serve to complement and supply the grace demanded. Of Greek letters, two-thirds are straight lined with a paucity of curves. Almost every Roman letter has individuality—an inscription in Roman capitals is full of vital touches.

Through the courtesy of Mr. C. L. Ricketts of Chicago, the writer is permitted to reproduce the two letters shown here from an unpublished manuscript alphabet of Roman capitals attributed to Leonardo da Vinci, and drawn probably about 1480. Of this alphabet a critic has said that "it represents the ultimate refinement in these letters" and this critic says he questions the writer's statement else-

EGYPTIAN HIERATIC	SEMITIC PHOENICIAN	HELLENIC EARLY GREEK	ROMAN EARLY LATIN	TODAY
A	A	A A A A	A A	A
B	B B B	B B B	B B	B
D	D D D	D D D	D D	D
R	R R R	R R R	R R	R

25 CENT. B.C.

10 TO 9 CENT. B.C.

7 TO 4 CENT. B.C.

200 B.C. TO 300 A.D.

DEVELOPMENT OF A B D R FROM EGYPTIAN WRITING



where that the capitals from the Trajan inscription "are probably the finest in character extant."

The letters of Leonardo are indeed fine, but the writer cannot bring himself to believe that capitals constructed on any geometrical system of lines, squares, circles and angles possess the spontaneity and variety of the freely drawn capitals that precede them, nor does he believe that these particular MS. letters were other than mere studies in form and proportion—rough formulations of a scheme to *reconstruct* and fix the proportions of some existing lapidary characters the great artist admired, later to

inated. The letters vary in shape and proportion; to bring out their full beauty requires a nice discrimination in the spacing and combining of their irregular forms.

For years after the fall of Rome, Latin lettering was retrograde, but with the advent of the Renaissance, pure classic forms of the ancients were revived; and the Italian Renaissance, it may be said, was the "golden age" of lettering. The artists of the Renaissance seem to have grasped the spirit of classicism, and their productions acquired a sense of refinement and grace not always present in the

# FLORIBVS'ETDV CVMTEGRALYP

SQUARE CAPITALS, 4TH CENTURY. FROM VIRGIL'S ÆNEID

be drawn by him with that wonderful freedom of line for which Leonardo was justly famous; or, perhaps, for use as model letters in some form of medallic art.

Moxon says of Roman letters that they "were originally invented and contrived to be made and consist of circles, arches of circles, and straight lines; therefore, those letters that have their figures entire, or else properly mixed, so as the course and progress of the pen may best admit, may deserve the name of *true shape*." But these self-same curves, arcs of circles, and straight lines make up also the letters that we do not always consider "true shapes," nor is it possible to entertain the opinion that all letters, although actually composed of these very elements, will necessarily submit to analysis or be reducible to set rules of formation. Beauty in letters depends on the adaptation of each of its parts to every other in a well-proportioned manner, so that their presentation as a whole shall satisfy the esthetic sense. Harmony, grace, and symmetry are gained by the blending together of the fine strokes, stems and swells in their proper relations and not by the mere blending of geometrical elements common to all forms, good or bad. Beauty is something much more subtle than geometry. The curves in the Trajan capitals are not simple geometrical curves, but are carefully considered quantities which impart a character to the forms that no mechanical construction can possibly give. Drawn freely, untrammelled by bow-pen, straight-edge, or mechanical rule, in the pursuit of distinction and style, each new line leads on to new difficulties to be overcome, to new subtleties of form and to constant varieties by each change of taste or fancy. So far as we of today are concerned the Trajan alphabet is primal.

The great merit of Roman capitals is simplicity; every useless and meaningless line has been elim-

inated. In Persia, a sentence written by a master of calligraphy is treasured as we might treasure a drawing by Holbein; the severe purity of the lapidary letters of the Renaissance produces a thrill of pleasure in the same way that the subtle proportions of a classic column move men to a desire for emulation. These artists of the Renaissance, however, added little to the essential forms already established by the early craftsman, so that their work needs no further mention here.

Through all the years since the first use of Roman capitals, scribes and printers have been developing uncials, half-uncials, capitals, lower case letters and italics; the original form of the Roman majuscule from which each of these later forms is derived, has been retained in all its essentials and still holds an organic place in the books and inscriptions of today. And especially is this apparent in the stonecut inscriptions of the present. Other forms of lettering used in common commercialism have suffered, yet the fine tradition of the lapidary capital still persists. Freer forms based on metal types or on hand-lettering seem mean, trivial, and without dignity when inscribed in stone. Much modern work seems to lack the spirit of delight in fine craftsmanship so evident in the old work.

Letters, to be classic, need not be cast in Greek or Latin mould; if expressed clearly as a Greek or Roman might have rendered them, with entire freedom from whims and with a full understanding of the necessity for directness, no frigid adherence to or pedantic prejudice for the Greek or Latin forms themselves is essential. Classicism, therefore, is not the mere reproduction of those wonderful creations, but, instead, is the craftsman's individual re-expression, in the spirit of the classical, of the thought underlying those ancient characters.





NEW LIBRARY BUILDING FOR DARTMOUTH COLLEGE, HANOVER, N. H.

JENS FREDRICK LARSON, ARCHITECT

## AN OFFICE COMPETITION

*By Jens Fredrick Larson*

GENERALLY, WEATHERVANES ARE COPIES of standard old designs which are quite beautiful in themselves but mean nothing on a new building. It seemed to me that on my new library at Dartmouth it would be wise to express Dartmouth tradition in some way, and a weathervane seemed the logical place to have some fun. I, therefore, asked the men in the office if they would be interested to enter a competition for a design which should interpret the tradition of the College. For a prize I offered a Dunhill pipe. The jury was composed of Mr. Edgerton, Dean Gray, Mr. Goodrich and Prof. Ames, all members of Dartmouth Administration or Faculty.

Everyone entered into the spirit of the competition in a splendid way. The competitors were keen to study the old history of Dartmouth, and various members of the Faculty aided them in their research. The jury was as anxious as I to obtain a weathervane which would express the very interesting tradition of Old Dartmouth.

Dartmouth, as is perhaps well known, was founded in 1769 by the Rev. Eleazar Wheelock, who had started the school in Connecticut for the higher education of the Indian. Occom, a full-blooded

Indian, was the first missionary to England to raise funds. The Earl of Dartmouth became interested in Occom and became President of the first Board of Trustees; hence the name "Dartmouth".

The jury had great difficulty in awarding the prize. They finally selected Mr. Stanley Orcutt's design which shows the old Dartmouth Pine with Eleazar Wheelock, backed by his barrel of rum, smoking a pipe of peace with Occom. The stump of the old pine is still used by each succeeding Commencement Class as a council spot to smoke a pipe of peace and to deliver orations. There is a Dartmouth song about Eleazar and his five hundred gallons of rum which is always sung at football games and other Dartmouth gatherings, to the effect that

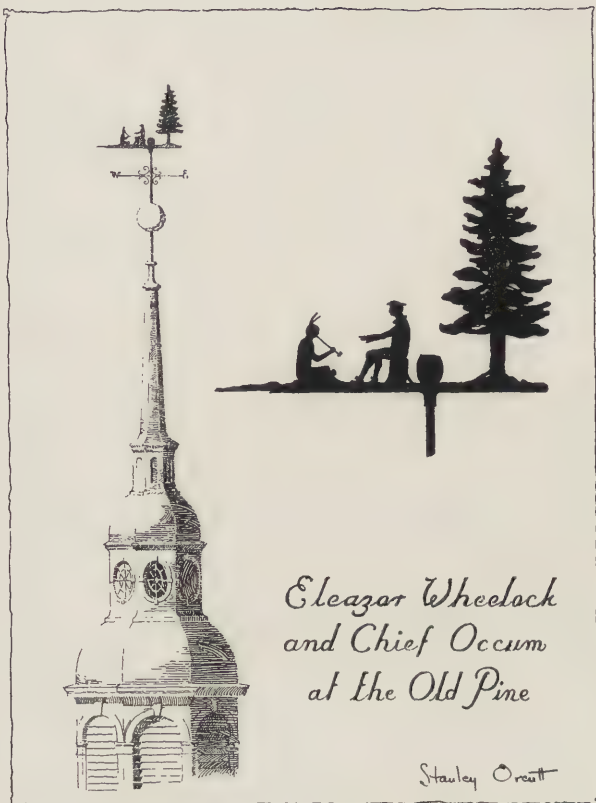
*"Eleazar Wheelock was a very pious man.  
He went into the wilderness to teach the Ind-i-an."*

*"Eleazar was the Faculty, and the whole curriculum  
Was five hundred gallons of New England rum."*

Of the designs submitted by Mr. Granger, the one portraying Occom and His Raft was considered



# PENCIL POINTS



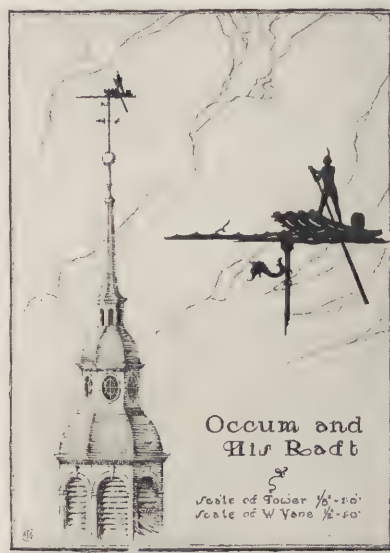
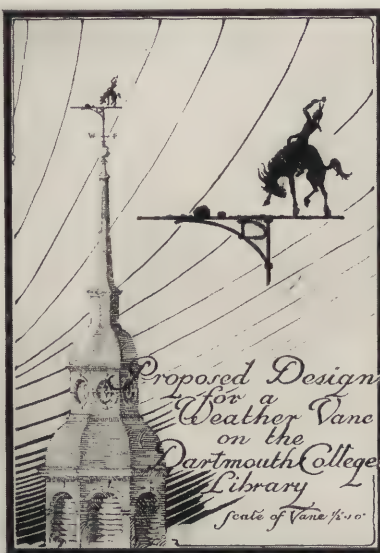
PRIZE WINNING DESIGN BY STANLEY ORCUTT



DESIGN SUBMITTED BY E. M. BRIDGE

by the jury to be excellently worked out but it was finally decided not quite true to tradition as Occum did not go down to the sea on a raft but used a canoe, the canoe being the accepted mode of transportation at that time. The Indian on Horseback is also a splendidly worked-out design but horses were not in vogue here at that early period. The Indian's Appeal for Greater Learning and the Indian's Head were delightful conceptions.

Mr. Bridge submitted the design which shows Eleazar Wheelock passing a book to Occum, which would have proven a good silhouette for the height at which the weathervane is to stand. The vane is to top the tower of the Library at a height of two hundred feet above the ground. This tower is to be the center of the Dartmouth plan and, rising above the trees and surroundings of the campus, will be seen from all roads leading to Hanover.



DESIGNS SUBMITTED BY ALFRED THOMPSON GRANGER



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





RENDERING IN WATER COLOR BY H. VAN BUREN MAGONIGLE

*Size of Original, 24" x 41"*

*Study for the Perry Memorial, Lake Erie*

*H. Van Buren Magonigle, Architect*





RENDERING IN COLORED PENCIL AND OPAQUE WATER COLOR BY O. R. FREEMAN

*Size of Original, 18" x 24¾"*

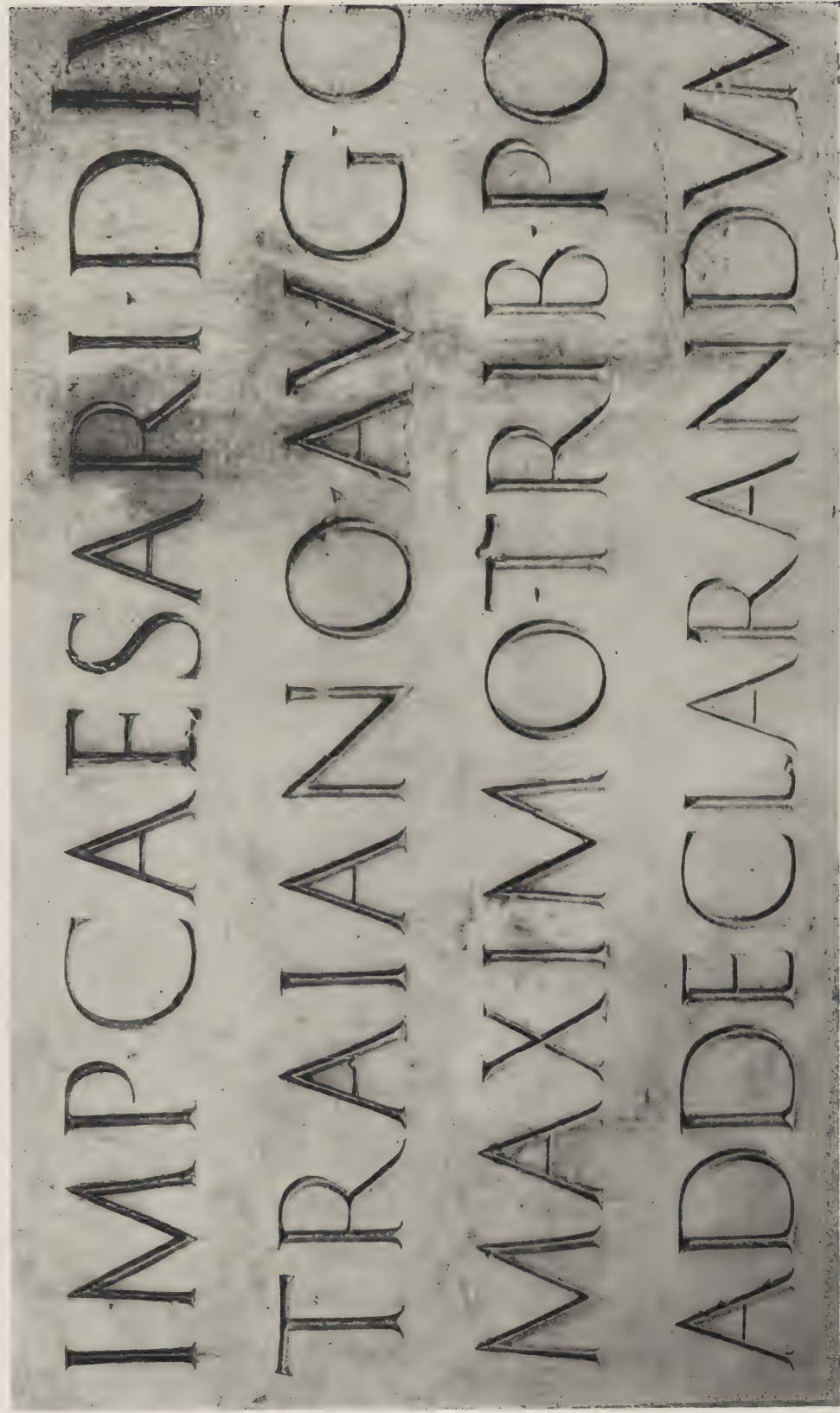
*Study for the Seaside Hotel, Atlantic City*

*Lockwood Greene & Co. Inc., Architects*



PENCIL POINTS  
SERIES  
*of*  
RENDERINGS  
IN  
COLOR





LETTERING FROM TRAJAN'S COLUMN, ROME—CUT ABOUT 114 A.D.  
REPRINTED FROM "ARS TYPOGRAPHICA"



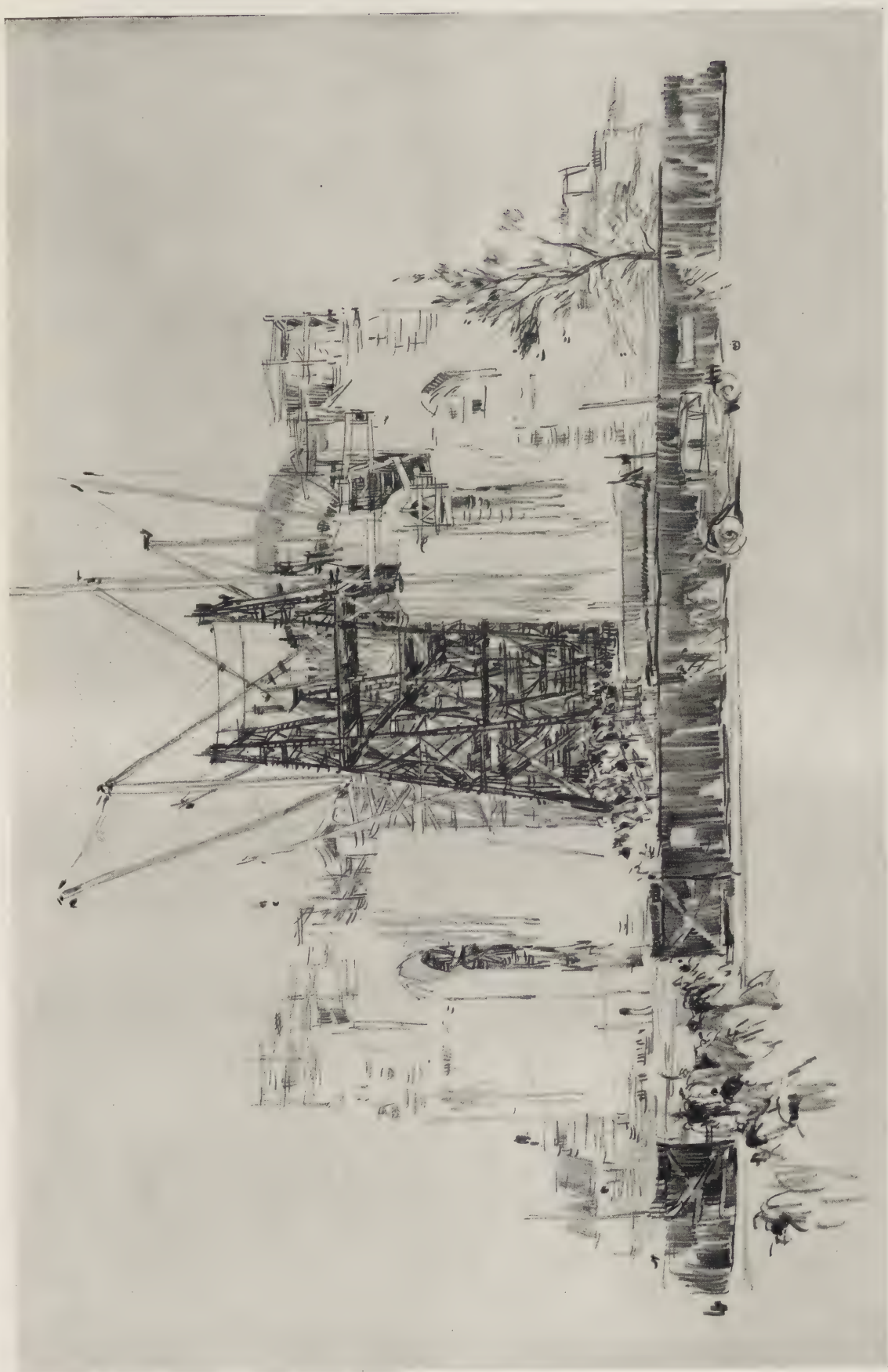
PLATE XLII

VOLUME VII

NUMBER 12

*The inscription reproduced on the other side of this sheet is taken from the Trajan Column in Rome. This monument, erected about 114 A. D., furnishes one of the very finest examples of Roman incised architectural lettering.*





PENCIL SKETCH BY A. L. WILSON  
"SUNDAY AT THE CATHEDRAL OF SAINT JOHN THE DIVINE"



PLATE XLIII

VOLUME VII

NUMBER 12

*This pencil sketch by A. L. Wilson was done with a refreshingly free technique which gives it a breezy individuality. The medium used was carbon pencil on cameo paper. Size of original, about 16" x 11".*





RELIEF PANEL FOR ASTORIA, L. I. WAR MEMORIAL

GAETANO CECERE, SCULPTOR

PENCIL POINTS





PLATE XLIV

VOLUME VII

NUMBER 12

*On this plate is reproduced a photograph of the full size clay model for the panel of the Astoria, L. I. War Memorial at Astoria Park. The monument, shown in the small figure above, was unveiled November 11, 1926. Paul P. Ruehl of New York was the architect with Harry Warren associate architect and Gaetano Cecere sculptor. The panel, which is about 7 feet high, is carved in gray granite.*





LITHOGRAPH BY SAMUEL V. CHAMBERLAIN

"THE OLD AND THE NEW," PARIS

PENCIL POINTS



PLATE XLV

VOLUME VII

NUMBER 12

*We reproduce here another of the series of lithographs by Samuel V. Chamberlain comprising a group of "Twenty Lithographs of Old Paris". The subject illustrated contrasts the picturesque decrepitude of the older buildings with the severe geometry of the new "skyscraper" apartment.*





# W H I T T L I N G S

## ARCHITECTURAL LEAGUE OF NEW YORK

NEXT WINTER THE LEAGUE will enter upon its forty-sixth year of existence. On the face of it, this does not seem of sufficient importance to warrant its appearance as a news item. Yet, to those who have watched its progress from year to year and have noted the vigor of its internal life, and the scope and importance of its public exhibitions, the forty-sixth year is full of significance.

Its internal activity is only held in check by limited quarters and by facilities which are inadequate. In a make-shift studio a life class draws every Monday evening. On Tuesday evenings, the etching press is used for printing from plate or from stones. Every Thursday evening, a dinner is held, followed by a program of one kind or another designed to either instruct or to entertain. Very frequently an instructive program turns out to be absorbingly entertaining, as in the case of November 4th, when dry point etching upon a lithographic stone was demonstrated by J. Scott Williams, the printing of the evening's work being cared for by George Miller, an experienced professional printer of etchings and lithographs.

One week earlier was "Ladies Night", when the program was more entertaining than instructive, for the best of reasons—what was presented to the audience was too difficult to permit of emulation. Mirio and Desha gave a spirited dance, "Adagio", with Miss Black assisting at the piano. This proved to be a portrayal of courage combined with audacity on the part of both dancers, for a mis-step or a false calculation on the part of Mirio might have resulted in bodily harm to his charming partner. It was a dance composed by the performers for eventual use before the public in a vaudeville circuit. The audience was captivated by the grace and skill of the performers. This dance was preceded by a very amusing impersonation of Beatrice Lillie by Oscar Widman, a talented member of the League who has frequently demonstrated his histrionic gifts.

The side of the League's life which the public sees will be shown effectively at the Grand Central Palace between February 14th and March 5th, 1927. Here also the audience will be instructed and entertained. In 1925 a similar exhibition was carried out at the "Palace", which amazed visitors by its size and scope. The exhibition of 1927, held in conjunction with an exhibition of Allied Arts, will not be as large as the one in 1925, as it was felt that the earlier effort was really too big to be satisfactorily seen in the limited period available. These annual exhibitions always attract a large body of men and women interested in architecture and the allied arts, and a certain number come to New York at that time solely to see this exposition. In order to increase the educational value of the effort, thereby inducing a still larger number of architects, decorators and craftsmen to come to New York at that time, it is definitely arranged that there will be a series of conferences during the mornings of the first week.

On Tuesday, February 22nd, the subject of this, the first conference, will be "Architectural Polychromy in Ancient Practice". Mr. Leon Solon, as Chairman of this day's program, will read a paper on Polychromy in Ancient Greek Practice. Mr. Milton Medary will cover color in Gothic Architecture. A third, not yet chosen, will deal with Oriental practice in olden times.

The next morning, February 23rd, the subject will be "The Architecture of Stage Scenery in Theatres and in Movie Studios". Mr. Howard Greenley will act as Chairman of this program and will be assisted by one or two others.

On Thursday morning, the subject will be "Architecture in Form and Color". The Chairman, Mr. H. Van Buren Magonigle, will be assisted by James Monroe Hewlett and one or two others. It may be assumed that they will point out how the lessons of the past suggest to the modern architect novel ways of combining color with the new forms

which are being evolved as a result of modern legislation affecting building heights and set-backs.

On the morning of the 25th, the topic will be "The Value of the Skyscraper in Modern Business". Mr. Harvey Corbett will act as Chairman of this program and will be assisted by one other.

This abbreviated list of the speakers connected with this series of conferences is the best that can be secured at this early date. The idea of holding such symposiums is new and frankly experimental. It is essentially a plan full of potential value. When could be found a better time and a better place for the gathering together of hundreds of architects, painters, sculptors, decorators and landscape architects than during the Annual League Show and in close proximity to the exhibits?

## AMERICAN ACADEMY IN ROME

FROM A LETTER recently received by C. Grant La Farge, secretary, from Frank P. Fairbanks, Professor in Charge, School of Fine Arts, we quote the following:

"The new appointees in the School of Fine Arts have all arrived and settled in the Academy. Deane Keller, the new painter, reached the Academy on October 8th, after having visited the galleries of London, Paris, Florence and Siena. Keller has begun sketches for his first year composition, a group of three figures. We have also applied for permission to enable him to copy a detail of an altar piece by Mantegna in the church of S. Zeno Maggiore in Verona and to work in the chapel of Madonna of the Arena in Padua, where he wishes to make a sketch of the general layout of the Giotto decorations.

"Webel, landscape architect, shortly after reporting in Rome, went to Florence, where he saw his predecessor, Newton. He took occasion during his trip to visit and compare eleven of the gardens in and about Florence, spending very nearly the entire month there. On his way to Rome he visited Siena and Orvieto.

"Alvin Meyer, retiring sculptor, left the Academy about the tenth of October, turning over to Kiselewski, the new sculptor, a quantity of studio material that he had collected during his four years at the Academy. Kiselewski has begun to block out a head in stone, as a process of warming up for his regular work.

"C. Dale Badgeley, the new architect, and Stuart M. Shaw, (replacing Douglas for this year) have both made trips to Ostia and Hadrian's Villa with Director Stevens.

"Of the older men, Fraser, architect, has concluded his restoration of a *terme* at Hadrian's Villa. Finley is progressing with his painting, and Camden has a seated figure of an Apollo, finished in small scale. He has a bust in progress, and his figure of a David is almost completed.

"Mueller, second year painter, has a figure composition under way, and Hancock, sculptor, has just returned from traveling to carry on his single figure of a trumpeter, at full size. He has a very carefully finished shepherd boy, with bag pipes, at about one half life size.

"The work of the large triptych by Bradford progresses. He has developed a cartoon of a Perseus and Medusa."

"Prof. Lamond informs me that Howard Hanson's new symphonic poem, "Pan and the Priest", was played at Queen's Hall, London, on Sept. 28th under the direction of Sir Henry Wood. All the newspapers gave considerable space to criticism of the work. *The Morning Post* of Sept. 30th said: "The principal interest at the concert lay in Howard Hanson's symphonic poem, 'Pan and the Priest' performed for the first time. There were distinct merits in the work, which indeed I thought one of the most attractive of the modern American school yet heard in this country. It is well-planned and well carried out, with themes that are effectively contrasted and orchestral colours that strike without dazzling the musical eye."





WASHBURN HIGH SCHOOL, CHICAGO, JOHN C. CHRISTENSEN, ARCHITECT



THE CRANE TECHNICAL HIGH SCHOOL, CHICAGO, JOHN C. CHRISTENSEN, ARCHITECT



### ATELIER OF LOS ANGELES ARCHITECTURAL CLUB

THE ATELIER of the Los Angeles Architectural Club entertained itself with a sumptuous banquet recently, in one of the private dining rooms of the "Casa Felipe", a delightful little café of Spanish Renaissance design on West Seventh Street.

As the last strains of the drinking song from "Opus 57" by Heinz, died away, those gathered about the festive board were called upon to give their right names, together with the names of their respective employers. Nominations of officers for the ensuing year were called for at this time, and a very spirited election contest was soon in full swing. When the smoke of battle and El Ropos had cleared away, the gaunt and haggard frame of George Euleless Masters loomed forth, triumphant but "bottle scared", as the Massier-elect.

After diligent search was made, the diminutive J. Raymond Wyatt was found with the portfolio of the office of Sous-Massier under his wing. Herbert C. Anset was sentenced to a year's hard labor as Librarian, Secretary, Chief Custodian, or whatever else needed doing.

Speeches of acceptance and vows of fealty and allegiance were made by the incoming officers, whereupon the retiring officers, Harold Abrams and Harvey Smith, sang their little swan songs.

Mr. Walter Davis, one of our Patrons, gave a very inspiring pep talk, emphasizing the importance of raising our scholastic standard and of maintaining and strengthening our organization.

The reading of the treasurer's report was followed by a discussion of the financial policy for the ensuing year, which may be of interest to other Ateliers. Hereafter all members will pay a matriculation fee at the beginning of the year or when entering at any time during the year. This fee is to be used for purchase of equipment and additions to the Atelier library. Monthly dues sufficient to cover regular current expenses are to be collected, and a member found guilty of non-payment of dues forfeits his rights and privileges in the organization and must pay another matriculation fee before being reinstated. In this way we hope to build up a more permanent organization, and wipe out the large inactive list that has been carried on the books.

A plea for donations to the library was voiced at the meeting, it being pointed out that we now have a responsible person in charge of the library, which is kept under lock and key at all times. (Architects of Los Angeles and all way points please note.)

The Atelier has in its possession a rather incomplete set of McKim, Mead and White plates, and an effort is being made to obtain the missing numbers, in order that the whole set may be properly bound. We have duplicates of some of the plates, and by a little swapping around, together with a bit of charity, we hope to be able to round-up enough for the binder to start one. Big hearted individuals may receive a list of the missing plates from the Librarian (Los Angeles papers please copy).

Mr. Fitch Haskell and Mr. Lee Fuller have each taken half of the analytiques and projets under their wings for criticism of the current Beaux-Arts problems, and a large class is well under way.

H. B. S.

### ATELIER DERRICK, DETROIT

THIS ATELIER now in its third season has begun the season's work in connection with the Beaux-Art Society with a group of fourteen men who are taking the regular problems. There are six additional men who are taking preliminary work before entering upon the regular course of problems.

A great deal of interest and enthusiasm are being displayed by the members and we look forward to a very successful year. It is hoped that this zealous group of workers will form a nucleus of a very large and successful Atelier which may develop into a well established architectural club. If this proves to be the case it will fill a long felt want in the City of Detroit and will be of great value to the architectural and allied professions in this city. The support of the practicing architects of Detroit is requested to insure the results which we hope for.

The Patron of this Atelier is a member of the faculty of the University of Michigan and with the co-operation and assistance of the Dean of the Architectural Department of that University we are looking forward to great accomplishments in the future.

### PRATT ARCHITECTURAL CLUB

DEAR MEMBERS AND FRIENDS: The Annual Meeting of the Pratt Architectural Club at the Fraternity Clubs' Building November 19th is o'er, also the wonderful dinner with its accompanying good time. About 75 men attended and they will freely admit a most enjoyable night even though we included a regulation business meeting. The business meetings usually have a way of being very boring but there was no doubt left in our minds that even this part of our program was successful and interesting.

Of course, no real dinner is complete without a speaker. Through the most valiant effort of our own Wm. H. Gompert, Architect for the Schools of New York, we had the distinct pleasure of hearing Mr. Kenneth M. Murchison, an architect of national repute. As a speaker he is second to none.

Then it was our pleasure to hear some school history and reminiscences from Mr. Walter Scott Perry, Director of the School of Fine and Applied Arts.

He also talked feelingly to "his boys" and the Science and Technology representatives. A bully talk and well received.

Mr. Franklin C. Edminster, contrary to previous rumors, chatted awhile. We believe Mr. Scott's compliment to us on getting Mr. Eddie to talk was very nice, but this is his third speech for the Pratt Architectural Club.

Mr. Frank P. Price, Professor of Engineering, acknowledged an introduction but strangely did not present one of his most interesting stories. (Guess he is so busy on his manuscript?)

We had four more guests whom we gladly welcomed and from each we heard some truths (even though they jarred) as to how others see us. As we are only the Publicity Committee we cannot insert our personal agreement without first consulting the Board of Governors, but we will admit unofficially it was not difficult to agree with some of the remarks of the S. & T. men. The guests were W. H. Barlow, Chairman, S. & T., Alumni Council; S. K. Fox, President, Industrial Mech. Eng. Alumni; B. J. Knudsen, President, Industrial Chem. Eng. Alumni; and A. Thornton Bishop, President of the Art Alumni. We would not mind speaking ourselves if we were guaranteed the vociferous applause showered on the speakers that night. Even our Chairman Ritchie received a good bit regardless of the Scotch stories etc., he offered. The Dinner Committee are to be commended highly for their efforts and evident success. More power to them.

The members approved a scholarship and Architectural Library donation at school for which we are glad. They also looked forward to the first issue of the P. A. C. News our official bulletin. (Send your address so that you will get your copy.)

So, fellow members and friends, we are sorry for those who did not come and glad we were among those present. With this closing outburst we send our best personal regards and hope to have twice as many members at our next gathering.

Cordially,

p.g.k., *Chairman*  
PUBLICITY COMMITTEE.

## PERSONALS

C. L. HUTCHISSON, ARCHITECT, has removed his offices to the Staples-Powell Building, Mobile, Alabama.

MURRAY KLEIN, ARCHITECT, has removed his offices to 65 Court Street, Borough Hall, Brooklyn, N. Y.

EDWARD M. PLANT, ARCHITECT, has opened offices for the practice of architecture at 705 Exchange Bldg., Miami, Florida.

C. WILLIAM SWANSON, ARCHITECT, has opened offices for the practice of architecture at 21 High Street, Pawtucket, R. I.

LEVY & FRICANO have opened offices for the practice of architecture at 152 West 42nd Street, New York.

D. WENTWORTH WRIGHT, ARCHITECT, has moved his office to 185 Maplewood Ave., Maplewood, N. J.





STUART M. SHAW

STUART M. SHAW (Columbia, 1925) is now at the American Academy in Rome filling the vacancy left by illness of the senior architectural member. The appointment, coming through W. A. Boring, director of the Columbia University School of Architecture, is for one year. It was cabled to Shaw while he was in Paris. In October he departed for Rome.

In June, 1925, he was awarded the Perkins-Boring Traveling Fellowship entitling him to a year of study in Europe. The winning thesis—"A Model County Court House"—was cut from its frame while hanging in a hallway of the school, during the summer. Neither the project nor the thief have been discovered.

Shaw was further honored at Columbia with the medal given every year by the American Architectural Association to the man excelling in classwork and design in each of sixteen schools.

Going first to England, in August, 1925, and thence to France, his most thorough researches during the last year have been in Spain and Italy, with Paris as headquarters. From March 1 to August he studied in Italy using Rome as a base of operations, making his home at the American Academy. While there he completed his *envoi* for the Perkins-Boring fellowship: a measured drawing of San Francesco Romano, a church in the Forum.

He is the son of Dr. and Mrs. R. E. Shaw, formerly of Indianola, Ia., temporarily of Washington, D. C. He graduated from Simpson College at Indianola in 1921 as a Bachelor of Arts and went to Columbia for architecture the following fall. For two summers he worked in the offices of Proudfoot, Rawson, and Sauer, of Des Moines. W. T. Proudfoot is his uncle. Another summer he was draftsman for the state architect at Albany. He is a member of Alpha Tau Omega.

## THE JAMES HARRISON STEEDMAN MEMORIAL FELLOWSHIP IN ARCHITECTURE

### SECOND COMPETITION

THE GOVERNING COMMITTEE of the James Harrison Steedman Memorial Fellowship in Architecture announces the second competition for a Fellowship of the value of fifteen hundred dollars, the holder of which is to pursue the study of architecture in foreign countries, as determined by the Committee and under the guidance and control of the School of Architecture of Washington University, St. Louis, Mo.

This Fellowship is open on equal terms to all graduates in architecture of recognized architectural schools of the United States. Such candidates, who shall be American citizens of good moral character, shall have had at least one year of practical work in the office of an architect practicing in St. Louis, Mo., and shall be between twenty-one and thirty-one years of age at the time of appointment to this Fellowship.

Candidates who are holders of a degree not conferred by Washington University are required to submit with their application a transcript of the record of their scholastic work.

Candidates must be sponsored by the architect in whose office they are taking, or have completed, the year of practical work required for eligibility to this Fellowship. Each application must also be endorsed by at least two other members of the American Institute of Architects.

Application blanks for registration can be obtained at any time upon written request addressed to the head of the *School of Architecture of Washington University, St. Louis, Mo.*, to whom all candidates are required to forward their application blanks, properly filled out not later than January 14, 1927.

## CINCINNATI ARCHITECTURAL SOCIETY

THE CINCINNATI ARCHITECTURAL Society, this year, is bigger and better than ever. The annual election of officers was held at the October meeting and the following men elected. G. A. Linder of Samuel Hannaford Sons was chosen president, W. B. Ward of Teitig and Lee, Secretary, and C. O. Boyce, who has recently opened an office of his own, was elected Treasurer. With the above mentioned men at the head of the organization the society should experience one of the best years of its existence.

## ATELIER HIRONS-MORGAN B.A.I.D.

OLD WINE IN NEW bottles, has the same kick, you remember, as the original. (Seems there's so few old bottles these days.) Hirons-Morgan is now in its new double-size container, confident of filling it with the same old spirit. 769 First Avenue is the label. Membership is expanding rapidly. More of that anon.

This means that Hirons-Morgan has altered somewhat. Since Village days of yore, and by accommodating more students, it hopes to be able to carry the old tradition farther than ever.

At a meeting, November twelfth, an annual affair, new officers were elected: *Massier*, Andy Euston; *Treasurer* Sam Baum; *Secretary*, Joe Judge; *Librarian*, G. W. Sommer; *Sous-Massier*, Charlie Beeston; *Chef-de-Cochons*, C. H. Johnson. This left almost everyone satisfied. Ex-Massier indicated what arduous duties were in store for each of the new incumbents. The Treasurer then pleaded for a revision of the dues to take the place of the "Book Fund". This was quickly agreed to and adjournment was in order.

All faces are turned toward a housewarming to take place at an early date in December. And all the older, as well as former members of the atelier, are expected to be on hand. Plans for a rousing good time are going forward. Nuf sed. PLEASE NOTE THIS: Paris Prize Drawings circulating among the colleges under the name of "Atelier Hirons Paris Prize Exhibit", and consisting of work of Euston, De Ghetto and Thomas, have been lost track of. Will the present holders please communicate with us?



## NOTES ON COLOR RENDERING

ONE OF THE GREATEST difficulties to be met in a large office where time is always an element in the initial stages of a job is to turn out quality work of the size desired in the time allowed. With the small job, the one-man client, a small sketch and personal explanation will suffice, but with the large job there are committees and financial groups and what-not who must be shown early in the game, and quickly, some idea of what is being done for them. The small sketch is out of the question, a large picture in color is what is wanted and furthermore, as plan sketches are probably being done at the same time, the picture maker must be able to make changes up to the last moment.

These three requirements of size, speed, and ability to make changes have brought about a process, a technique and a use of materials to meet the demands.

Vanishing points and the detail one falls into in a large perspective make impossible an initial layout at large scale. The problem is studied in perspective at small scale,  $\frac{1}{8}$ " or  $\frac{1}{16}$ " on a large group. Various viewpoints and eye levels are tried out, and, when a general idea, both as to design and perspective presentation is finally arrived at, this small scale sketch, accurate, but devoid of any great detail, is "photostated" up to a large size and detail added or changes made. This second sketch may be again photostated up to the final size or photographed and printed enlarged to final size on a good quality water color surface paper. If a photographic enlargement, there is no further pencil work. If a photostatic enlargement, thin tracing paper of good quality is stretched over the photostat and a pencil drawing with a 6B pencil is made on the paper, often carried to a finished pencil drawing. So far, whether photograph or pencil rendering, no color has been used.

The problem of necessary last minute changes make impossible the use of ordinary water-colors or pen and ink, and lack of permanence bars pastels. Oils are out of the question, both from the standpoint of change and drying. So the colored pencil is taken up first as a solution of the problem, but big sky areas, and broad brick or stone walls present too slow and uncertain work, difficult to cover smoothly and requiring such a heavy coat of pencil color that later shading would not stick, so opaque water color is combined in use with the colored pencils, and, so far, has made good, with the exception that great care must be used so as to avoid laying on the opaque color too thick, for it flakes off easily.

As to method, once the pencil drawing or photo enlargement is ready, the sky and all broad surfaces are laid in with an opaque ground color, the sky graded and clouds done in the one wash. The main light and dark planes of the structure are done in opaque. All detailed shading, grading of shadows, and foliage is done in colored crayon or pencil, a palette of forty-eight colors being used. Where the color of material is being indicated the stroke takes the direction of the material, brick in horizontal lines, etc. Where shadow is being laid in the stroke usually crosses that of the material, giving a screen effect and vibration to the color, a depth that no solid wash can give.

Both the opaque and the crayon admit of many changes, and, with due care a drawing can by this process be turned out with the first sketch plans which will have, incorporated in it the very last changes, and serve no small part in presenting clearly to the client the plan and idea of the architect.

*O. R. Freeman*

## A CORRECTION

ON PAGE 685 of the November issue of PENCIL POINTS there appeared a rendering of the Temple Adath-Israel, Boston, which was attributed to McLaughlin & Burr, Architects. This caption is correct so far as it goes, but it should have contained the further information that C. Howard Walker and Charles A. Coolidge were associated with the job as advisory architects. We regret the omission.



O. R. FREEMAN

O. R. FREEMAN who is the author of one of our color plates in this issue, was born in Helena, Montana in 1892. He is a graduate in Architecture of the Massachusetts Institute of Technology, class of 1915. While at Tech he was very active as a designer of scenery, posters, and so on for the annual "Tech Show", and was, in addition, author of the show in 1915. The same year he was art editor of the school year book. In 1916 he won the Boston Society of Architects prize, which was competed for by students at Harvard and Technology. Upon graduation he joined the office of Kilham, Hopkins and Greeley, where he remained until January, 1926, except for two years' service with the 316th Engineers. Since January, 1926, he has been with the firm of Lockwood Greene & Co., Inc., Architects, as a designer and draftsman. Mr. Freeman has made many renderings for architectural firms in Boston where his work is well known. As a hobby, he has for a number of years interested himself in the work of the boys division at the Boston Y. M. C. A., where he has established a number of boys' clubs.

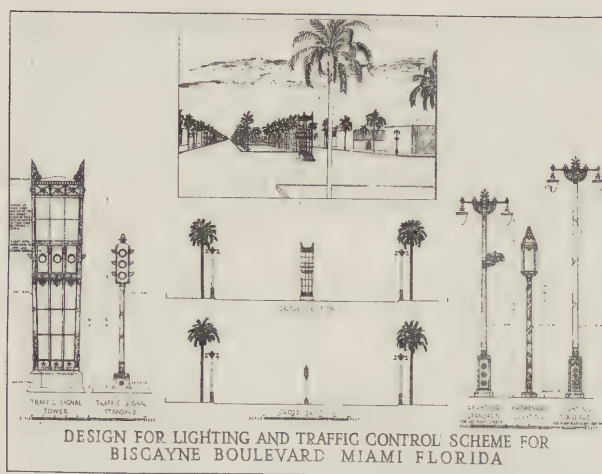
## LAST MONTH'S COLOR PLATES

FREDERICK R. WITTON of the firm of McLaughlin and Burr, Architects, of Boston is the renderer of the color plate in last month's issue depicting a small house by Charles Everett. The drawing was made on Strathmore Illustration Board with B and 3-B pencil and then tinted lightly with water color.

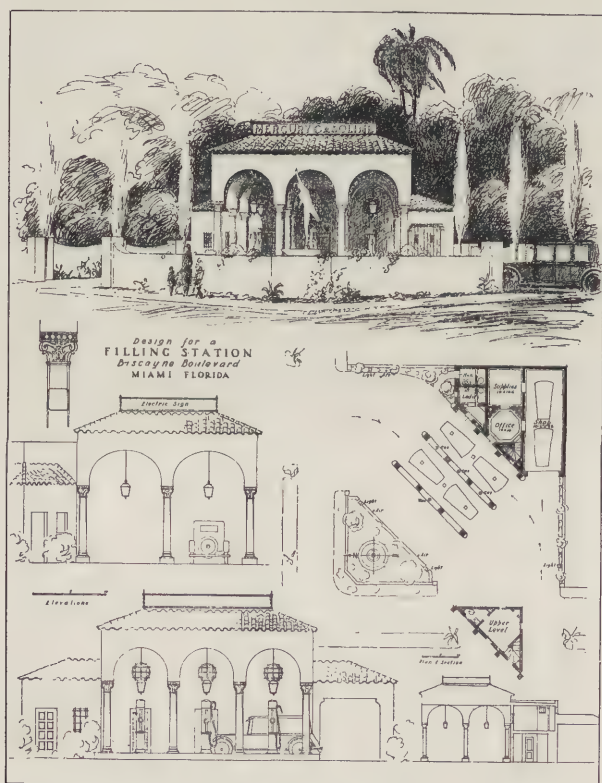
Mr. Witton, a former holder of the Rotch Traveling Scholarship, has made many renderings for Boston firms. The one we have chosen is a good example of his direct and effective style of draftsmanship.

Mr. Le Boutillier, who was represented by the other color plate, is well known to the profession as a member of the firm of Ripley and Le Boutillier and as a draftsman of superlative ability. His contribution was done in pure water color with great delicacy and distinction.

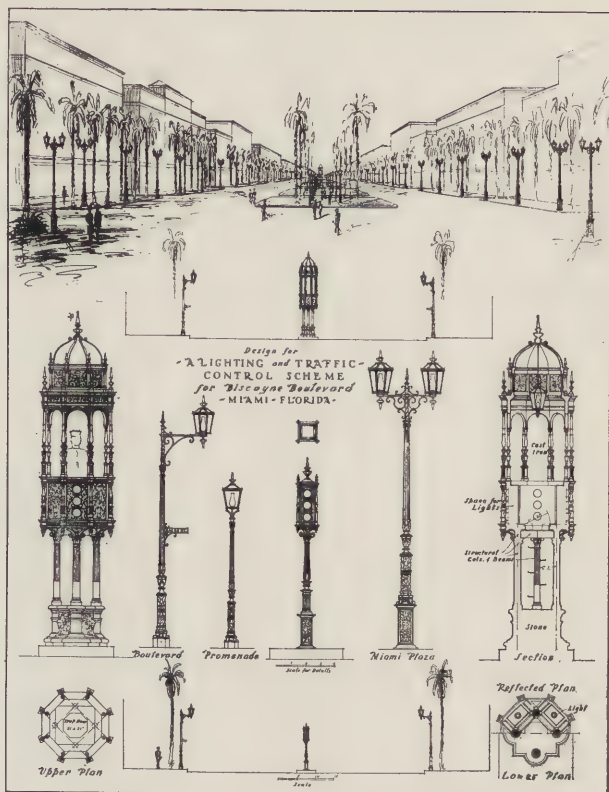




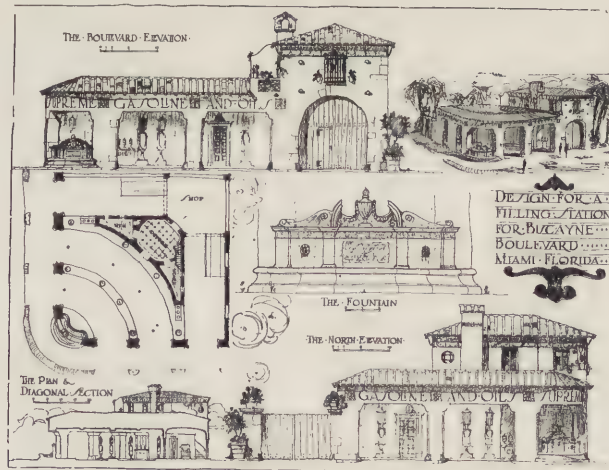
First Prize Design by S. Grillo, New York



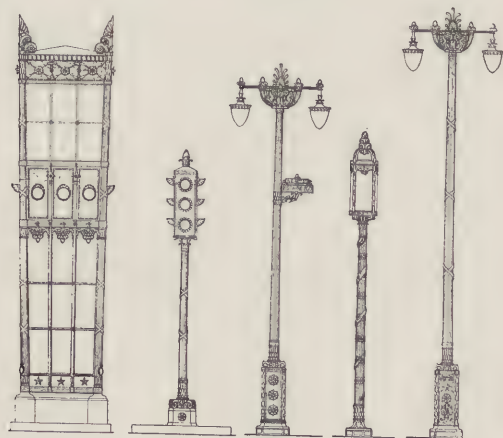
First Prize Design by H. Roy Kelley, Los Angeles Cal.



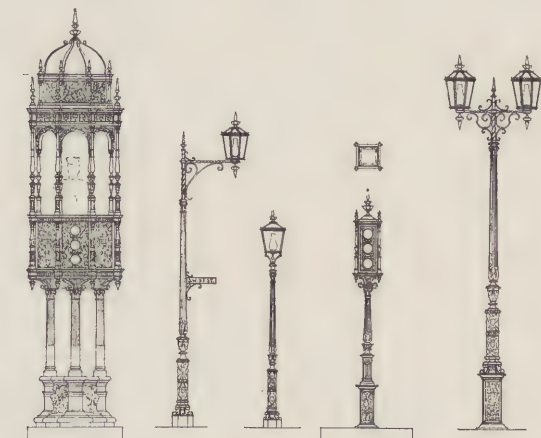
Second Prize Design by H. Roy Kelley, Los Angeles, Cal.



Second Prize Design by Edgar Albright, New York



Details of Design by S. Grillo



Details of Design by H. Roy Kelley

WINNING DESIGNS IN TWO COMPETITIONS FOR BISCAYNE BOULEVARD, MIAMI, FLA.



### PRIZES AWARDED IN BISCAYNE BOULEVARD COMPETITIONS

The Jury examined thirty-nine drawings submitted in Competition No. 1 for street lighting and traffic signal designs. Three of these designs are meritorious. With the exceptions of these three, the Jury feels that little has been contributed toward the solution of this difficult problem in street fixture design. However, because of the specific terms of the program, awards have been made in the case of fourth prize and of the six mentions.

In the case of Competition No. 2 for a model filling station, many excellent designs were found. Fifty-four drawings were submitted.

The report of the jury, in part, is as follows:

Competition No. 1—Street traffic signal and street lighting standards.

The first prize of \$1000 was awarded to S. Grillo, New York. He has developed a very happy solution of a difficult problem. The designs are excellent and well suited to the material, except in the use of sheet metal on the tower in imitation of marble. The street light globes are too small and the traffic signal standard should have provision for illumination of the shaft and should be provided with a more substantial base.

Second prize of \$600 was awarded to H. Roy Kelley, Los Angeles, California. The solution evolved by this author is successful in part only. The tower is picturesque and practicable. The signal standard would be more attractive if the cage for the lights had been shortened and widened. The lighting standards are generally weak in design, especially the lamps and supporting brackets. If the lower portion of all the standards were treated similar to the boulevard lighting standard, the solution would have been more successful.

The third prize of \$400 was awarded to Arthur Dillon, New York.

The fourth prize of \$200 was awarded to Bayard Clark Noble, Germantown, Pennsylvania.

The following men received a mention and an award of \$75.00: Walter J. Campbell, Danbury, Connecticut; Thomas A. Cresswell, Chicago, Illinois; Duke W. Rowat, Auburn-dale, Massachusetts; Albert MacNaughton, Atlantic City, New Jersey; Antonio Petrucci, New York; Matthews M. Simpson, Nashville, Tennessee.

Competition No. 2—A model filling station.

The Jury was very much pleased with the manner in which the gas station problem was approached. Many of the designs show much originality and study of the problem.

The first prize of \$750 was awarded to H. Roy Kelley, Los Angeles, California, for the best solution of the problem. (Mr. Kelley's design is shown on the opposite page.) For both practical consideration and attractiveness, this design was the best submitted. It is a good treatment of a corner city lot. The Jury feels that this design properly detailed and executed would prove a practical solution of the problem and that it is a design which would attract both business and the appreciation of the public.

The second prize of \$400 was awarded to Edgar Albright, New York, for an appropriate design for a city corner, where no assurance is had of what will be built on either side. (Mr. Albright's design is shown on the opposite page.) The design is excellent in character nearly equalling, in the mind of the Jury, the one awarded first prize.

The third prize of \$250 was awarded to John Donald Tuttle, New York. The fourth prize of \$150 was awarded to William Charles Ullrich, Hollywood, California.

The following mentions of \$75 each were awarded by the Jury: Albert MacNaughton, Atlantic City, N. J.; Samb. S. Washizuka, Ann Arbor, Michigan; Herbert Fritz, River Forest, Illinois; Pierre & Wright, Indianapolis, Indiana; Francis J. Tarlowski, New York; Francis Keally, New York.

Jurors { DWIGHT JAMES BAUM  
ELMER C. JENSEN  
JAMES H. GILMAN

### DETROIT ARCHITECTURAL BOWLING LEAGUE

THE DETROIT ARCHITECTURAL BOWLING LEAGUE started its fifth season on September 17th, with two new teams, Frank H. Nygren and Louis Kamper, replacing the representatives from the offices of Geo. D. Mason & Co., and Simmers & Waalkes, who withdrew at the close of last season.

The officers for the current season are as follows:

Pres.—Geo V. McLaughlin  
V. P.—Lester S. Manning  
Secy.—Albert E. Schoerger  
Treas.—Walter H. Erickson

We are in hopes that the New York Architectural Bowling League will possess sufficient stamina *this* year to meet our team in a series of competitions. We have decided not to wait for them to suggest this series and they will hear from us very soon.

The standings of the teams on Nov. 5 were as follows:

	Won	Lost
Malcomson & Higginbotham	18	6
Donaldson & Meier	14	10
Louis Kamper	14	10
McGrath, Dohmen & Page	14	10
Smith, Hinchman & Grylls	13	11
Frank H. Nygren	13	11
Janke, Venman & Krecke	11	13
Albert Kahn	9	15
Van Leyen, Schilling & Keough	8	16
Weston & Ellington	6	18
Ind. High—1 game—Roof—255		
Ind. High—3 games—Jolson—645		
Team High—1 game—McGrath, D. P.—1021		
Team High—3 games—McGrath, D. P.—2821		

LESTER S. MANNING, Vice-Pres.

### PITTSBURGH ARCHITECTURAL CLUB

THE PITTSBURGH ARCHITECTURAL CLUB is beginning on its winter season. It has just recovered from about the most successful picnic that has been held in this section for many years. The picnic was held this year in the country and the members were so devoted to the idea that some of them started the night before the picnic and slept out in a barn so as to be on the ground. A World's Series never had anything on this picnic for a waiting list. The picnic could not be called dry, neither was it very wet. There were about 140 in attendance, which is the record for the Pittsburgh Club.

The annual election was held recently with the following results:

President—Wm. H. (Scotty) Harrold  
Vice-President—M. Nirdlinger  
Treasurer—Raymond M. Marlier  
Director—Chas. M. Stotz  
Secretary—M. E. Henry

The main work of the Club consists of two items—first, the publication of *The Charette*, a little monthly magazine of rejuvenation, which has been published for about six years. This has now been changed into an illustrated magazine and the Club sees a future opportunity of importance and proposes to develop the committees, and spread out the work of handling the magazine so that its circulation and its influence can be extended. It is proposed to change its policy into that of a subscription list, since its copies are considerably in demand and up to now have been furnished on a free list, which may be no longer necessary to continue. The publication of this magazine is unique at the present time and has created a great deal of outside favorable comment. The second item is the exhibition. The Club holds an annual exhibition in the galleries of the Carnegie Institute where unusual facilities are offered and an interesting annual exhibition of current architecture has been put on for many years.

There is also talk about Club quarters. This is a perennial subject and some day it will be realized. The Committee is almost always in existence looking into this matter and is now more hopefully sustained than usual. A good many of the Club members belong to the Architect's Council of the Pittsburgh Chamber of Commerce and find in that an opportunity to mix into civic affairs and participate with other business organizations in a way to fill a long felt want. As regards the social part, the monthly meetings of the Club always furnish a chance for the men who are alive to the opportunities that an Architectural Club gives for self development and helpful exchange of ideas of the members getting together. Whenever there is anything interesting a large turnout is assured. The officers are also talking about organizing a bowling tournament, as has been done in so many of the other cities. There are a lot of good bowlers that need organization and some of them think they are better than they really are.

M. E. HENRY, Secretary



# HERE AND THERE AND THIS AND THAT

CONDUCTED BY RWR

THINGS HAVE BEEN QUITE spry and snappy around here this month, contributors having sent in more than the usual amount of material for consideration. Even verse is represented which has been very scarce around here of late.

The prizes go as follows:

- Class 1—George Spinti
- Class 2—Paul Ferrante
- Class 3—Guy Edward Gaston
- Class 4—Frank Harazim

Mr. Harbeson's book, "The Study of Architectural Design", with colored frontispiece and substantial cloth binding, is now ready for delivery. The price is \$7.50. Of course any PENCIL POINTS book not found entirely satisfactory may be returned and full purchase price will immediately be refunded.—adv.

Yes, we are getting quite a few letters in response to the queries we propounded last month concerning the merits of this department,—or the lack of them. No, we are not going to tell you what the drift is at present, but in the next issue we will give you a resumé of these most interesting documents and will publish the prize-winning letter.

Another potential draftsman has appeared in the person of J. H. Messineo, Jr., the nine pound son of Mr. and Mrs. J. H. Messineo of Chicago. Good luck, Young Fellow, we say!

## OMNIPOTENCE

(PRIZE—Class Two—November Competition)

One will *not* give in; one will not yield  
 Proud Freedom's bounty for Luxury's meagre tree:  
 One will not yield the spaciousness of Liberty  
 For smug concordance with plodding men who sealed  
 Their birthright to fallow Domination: who wield  
 Their fawning humor to the doles of Charity;  
 One will *not* permit the brand of Commonality  
 To stamp the curse of Lifefulness congealed.

I see *rebuke* in the eyes of mild toiling men,  
 My Benefactors, Friends. Their quiet sober charm  
 Is broken: I feel Tradition's Conscience to the hilt—  
 Profligacy of Ingratitude! Again  
 I bear full weight of friendlessness—the harm  
 Is wrought: but strange, I do not feel my guilt.

Paul Ferrante



By PHILIP KUTZ, LOS ANGELES, CAL.

PENCIL POINTS WANTS A TRADEMARK AND WILL PAY ONE HUNDRED DOLLARS FOR THE BEST DESIGN SUBMITTED.

We wish to secure a design in which the number 152 predominates, to be used as an all purpose emblem or trade mark for PENCIL POINTS.

152 is the sum of the letters of the words PENCIL POINTS valued according to position in the alphabet, thus:

(A = 1) (B = 2) (C = 3) etc.

P = 16  
 E = 5  
 N = 14  
 C = 3  
 I = 9  
 L = 12

P = 16  
 O = 15  
 I = 9  
 N = 14  
 T = 20  
 S = 19

152

Competitors are allowed the widest latitude in design, which may be either a monogram, using only the numerals 152, or it may be ornamented with architectural symbolism or otherwise—any shape—but it must be sufficiently simple to permit of its being reduced to three eighths of an inch in its greatest dimension and still show 152 prominently.

The illustrations are shown merely as suggestions.



What we want is an original design of striking character, full of pep and personality.

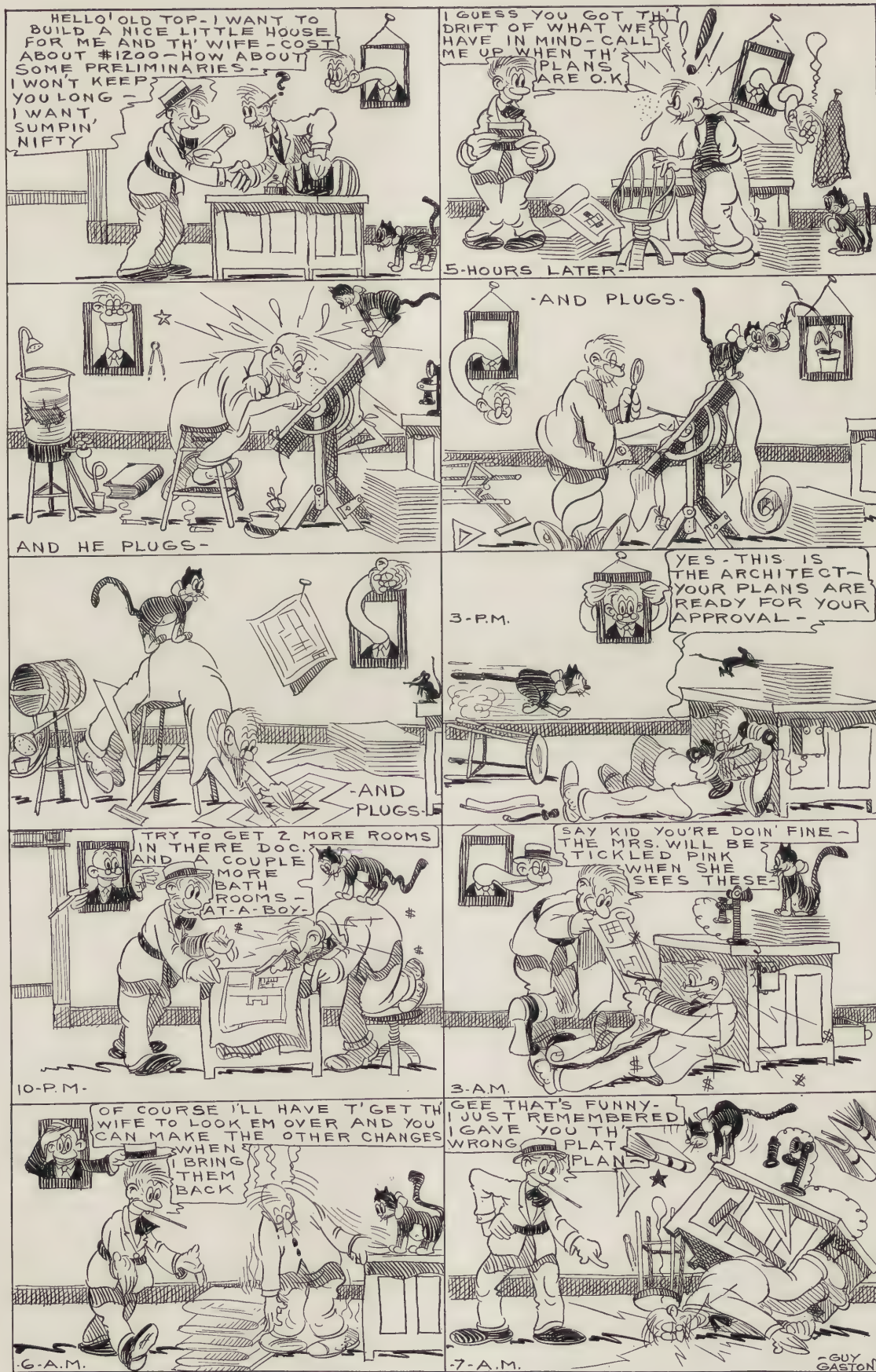
The design should be drawn in black ink on white bristol board to reduce to three eighths of an inch—in line cut.

A prize of one hundred dollars will be awarded for the best design submitted before Jan. 31st, 1927 which shall become the property of THE PENCIL POINTS PRESS, INC., 19 East 24th Street, New York, N. Y.



LINOLEUM PRINT BY CHARLES W. JONES

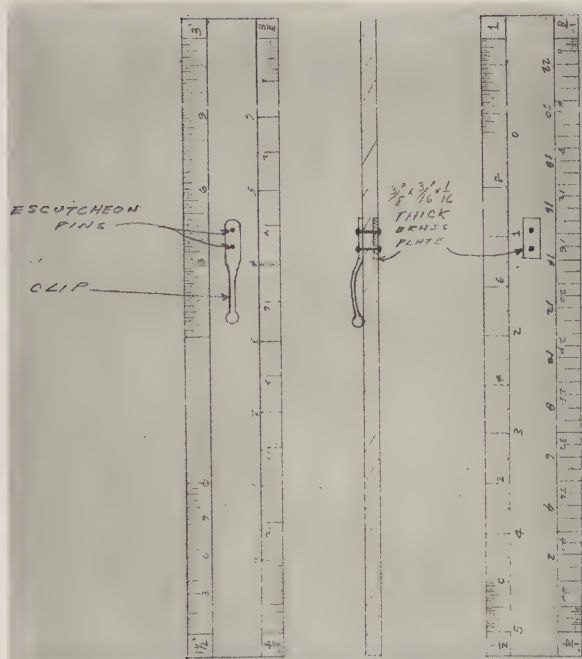




CARTOON BY GUY EDWARD GASTON, BALTIMORE, MD.  
(PRIZE—Class Three—November Competition)



## PENCIL POINTS



### CLIP HOLDS SCALE IN VEST POCKET

BY Frank Harasim

To PREVENT LOSS of his pocket-size scale, a draftsman secured a fountain pen clip to it so that the scale would not fall out of his vest pocket.

To fasten the clip to the scale two small holes were drilled in the wooden scale and two corresponding holes were drilled in a  $\frac{3}{8}$  inch by  $\frac{1}{8}$  inch by  $\frac{1}{16}$  inch thick brass plate and a recess made in the scale as shown to receive the brass plate. Then the plate with the clip were riveted to the scale with escutcheon pins. When the riveting is being done care should be taken not to hammer too hard as the wood may split.

Though this idea is used on a wooden scale the method may be modified for a machinist's steel scale by omission of the plate.

### COPIES OF PENCIL POINTS

WANTED AND FOR SALE

John W. Armstrong, Warren G. Harding High School, Sawtelle, Calif., wants January, February and March, 1925.

Honorato Colete, Mnza. de Gomez 443, Havana, Cuba, wants January, October, November and December, 1921, for which he will pay 50c. each. He also has for sale or exchange, November, 1923, and May, 1924.

H. A. Merrill, 832 N. Aurora Street, Ithaca, N. Y., wants April, and May, 1926.

The Clemson Agricultural College, Dept. of Architecture, Clemson College, South Carolina wishes to replace the following copies destroyed by fire: January, 1921; February, 1922; April and October, 1923; January, May, June and October, 1924; January, February, March, 2 copies of April, 2 copies of May, June, October, November and December, 1925.

George Rouscher, 862 Chaffee St., Brooklyn, N. Y., will sell 1922 complete except January; 1923 complete; 1924 complete; 1925 complete and also many double copies.

Mrs. E. A. Myers, 680 Riverside Drive, Apt. 1A, New York, will sell November, 1924; March, July, August, September, October, November and December, 1925.



DEMOLITION (GET 'EM WHILE THAR HOT!)-CARTOON BY A. H. SLAUGHTER

Liberty sausage king waiting for his Architect to discuss plans for new million-a-day Hot Dog Factory alongside the great crowded spaces where pups are pups.





PENCIL SKETCH BY ST. ELMO, TOWER PIZA  
"Labor, Capital and Commerce."



PENCIL SKETCH BY GEORGE SPINTI  
(PRIZE—Class One—November Competition)



PENCIL SKETCH BY H. W. KELHAM



BLACK AND COLORED PENCIL SKETCH BY J. A. FERNANDEZ



# PENCIL POINTS FIRST ANNUAL ARCHITECTURAL COMPETITION

*Conducted by* RUSSELL F. WHITEHEAD, *Professional Adviser*

## PROGRAM FOR A RESIDENCE AND GARAGE

To be Built of Arkansas Soft Pine



### COMPENSATION TO COMPETITORS

PENCIL POINTS agrees to pay to the winners, immediately after the judgment of the Jury, the following:

For 1st Prize Design .....	\$1000.00
" 2nd Prize Design .....	500.00
" 3rd Prize Design .....	250.00
" 4th Prize Design .....	100.00

SIX MENTIONS

### JURY OF AWARD:

H. T. Lindeberg, Architect, *New York*  
Frank B. Meade, Architect, *Cleveland*  
Arthur I. Meigs, Architect, *Philadelphia*  
Hubert G. Ripley, Architect, *Boston*  
Ernest John Russell, Architect, *Saint Louis*

PENCIL POINTS and the Competitors agree that the jury has authority to make the awards and that its decisions shall be final.

ARCHITECTS AND DRAFTSMEN are cordially invited to participate.  
Contestants may submit any number of designs.

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*This Competition closes at 5 P. M. Monday, March 14, 1927*

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### THE PURPOSE OF THE PENCIL POINTS COMPETITIONS

PENCIL POINTS has instituted an Annual Architectural Competition as an added feature of its work. The following competitions will give consideration to buildings of various types encountered in everyday practice. The altruistic object is to raise the standard of architecture by discovering and encouraging new talent. The whole undertaking is part of a larger movement of the publishers, manufacturers and the building trades. It is educative in the broadest sense of the word.

THE 1927 COMPETITION is sponsored by the Arkansas Soft Pine Bureau, Little Rock, Arkansas. It is in sympathy with the aims of PENCIL POINTS, endeavoring to bring out new thought, particularly in the design of the small house. The Arkansas Soft Pine Bureau hopes that the results of this competition will provide prospective house builders with a point of departure, at least, and will show the man of modest circumstances that the architecturally trained man can solve his small house problem from both a practical and an esthetic point of view, when given an opportunity and an incentive. It is believed that designing and planning of houses, even for the busy architect, should hold first place in his heart, and that architects, therefore, should be glad to consider this program with their associates and contribute of their skill, so that the small house may be taken out of the "step-child" class and given the character and dignity of which it is worthy.

### PROGRAM OF THE COMPETITION

**PROBLEM: Mandatory.** The design of an attractive all-year-round residence and a garage to be built of wood, not exceeding 28,000 cubic feet in contents, including garage. A maximum of convenience and utility is required at a minimum initial and upkeep expense. The house is to be lived in by a family of two adults and two children. The site is a rectangular lot with a frontage of fifty feet (50'-0") on the street and a depth of one hundred and fifty feet (150'-0"). The grades are level. The street runs North and South. The house is to be self contained on its own lot. The neighboring houses are of the usual heterogeneous character of design existing in towns, small cities or the suburbs of the large cities. A local restriction

provides that no building shall be erected nearer than thirty feet from the highway property line and that no building may be placed directly on either the north or the south lot line.

Seven principal rooms are required for use as a Living Room, Dining Room, Kitchen and four Bed Rooms. Two Baths and one two fixture Lavatory are to be provided. The necessary circulations must be included and there shall be at least one Closet for each Bed Room, also a Linen closet and a Coat closet. There is to be a Sleeping-porch and at least one Covered-porch. The garage is to accommodate one automobile. The garage may either be part of the house or be detached.



## PROGRAM FOR A RESIDENCE AND GARAGE

### CONSIDERATIONS OF THE JURY OF AWARD:

1. Excellence and Ingenuity of Plans.
2. Architectural Merit of the Design, and Treatment of the Interior Woodwork and the fitness of both to express a wood-built house.
3. Practicability of Construction.  
NOTE: Due consideration will be given to the contestant who makes economical use of the standard lengths and widths of lumber.
4. Fitness of the design as a whole to meet the needs and spirit of the problem.

Excellence of Rendering, while desirable, will not have undue weight with the Jury, in comparison with their estimate of the Competitor's ability, if otherwise shown.

**COMPUTATION OF CUBIC CONTENTS:** Measurements to be taken from the outside of exterior walls and from the level of the cellar floor, or from the bottom of floor beams in any unexcavated portion, to a point at half the distance from the top of the wall plate to the top of the ridge for pitched roofs. Flat roofs to be figured to finish surface. Porches are to be figured at one half their total gross cubage, the height to be measured from the finished grade. Sleeping-porch, one story wings or bays shall be figured at their actual cubage. All cubage figures will be carefully checked before designs are submitted to the Jury.

*Designs exceeding 28,000 cubic feet will not be considered.*

**PRESENTATION, DRAWINGS:** *Mandatory.* The following drawings are to be submitted:

1. *Perspective* of the residence, viewed from the street, undeniably true, rendered in pen and ink, clearly indicating the character of the exterior finish and showing a scenic background which is in keeping with the limitations of the site.
2. *Plans*, at scale of one quarter inch equals one foot, of the *First Floor* and the *Second Floor*. The walls and partitions are to be inked solid black and the name and dimensions of each room lettered plainly to be read easily when reproduced at one third the size of the original drawing. Range, sink, cupboards and beds are to be shown.
3. *One side and the Rear Elevation*, at scale of one eighth inch equals one foot.
4. *Section* at scale of one eighth inch equals one foot, showing all wall, ceiling and roof heights.
5. *Detail of some Exterior Feature* of the design at scale of three quarters inch equals one foot.
6. *Perspective of a chosen Aspect of the Interior of the Residence*, rendered in pen and ink, projected from a one quarter inch scale plan.
7. *Plot Plan*, at small scale, showing location of house and garage on the lot and suggesting other developments of the property which would add to the completeness and attractiveness of the residence and be in accord with the requirements of the man of modest circumstances.
8. *Graphic Scales* must be shown.
9. The drawings shall be made in full black ink and shown on two sheets of white paper. Diluted black ink, color or wash; card-board, thin paper or mounted paper is prohibited.
10. Each sheet is to be exactly 25 x 34 inches. Single black border lines are to be drawn so that space inside them will be exactly 23½ x 32½ inches.
11. Each sheet shall bear the title: *Design for a Residence and Garage of Arkansas Soft Pine*. Each sheet is to be signed by a *Nom de Plume*, or device.
12. The perspective of the residence and the floor plans are to be shown on the same sheet. On this sheet, enclosed in single black border lines, is to be printed competitor's itemized computation of the total cubage, and brief notes suggesting the color and treatment of the material. The other drawings called for shall be attractively arranged on the second sheet.

**ADDITIONAL COMPENSATION TO COMPETITORS:** Each contestant submitting a design in this competition agrees to prepare and furnish for a consideration of Two Hundred Dollars (\$200.00) to The Arkansas Soft Pine Bureau, if required in writing so to do and within sixty

days thereafter, an acceptable and complete set of seven sheets of working drawings (at ¼ inch scale, details of ¾ inch scale) drawing in ink on tracing cloth, of his or her design. Provided further that these working drawings are to bear the name of the designer and are to become the property of The Arkansas Soft Pine Bureau and that the contestant shall make no claims for royalties or other compensation in case copies of same are sold.

**COMMUNICATIONS:** *Mandatory.* As this in an open Competition it will be impossible to answer communications. Therefore, the contestants shall not communicate on the subject of this competition with the Professional Adviser, Members of the Jury or with any other person in any way connected with it, either directly or indirectly.

**ANONYMITY OF DRAWINGS:** *Mandatory.* The drawings submitted shall contain no distinguishing mark, except the *Nom de Plume* or Device, which could serve as a means of identification. No competitor shall directly or indirectly reveal his or her identity to a member of the Jury or to the Professional Adviser.

With each set of drawings there must be enclosed a plain opaque envelope, containing the true name and full address of the contestant. The *Nom de Plume* of the contestant shall be placed on the outside of the sealed envelope. The envelope will be opened by the Professional Adviser, in the presence of the Jury, after the awards have been made.

**DELIVERY OF DRAWINGS:** *Mandatory.* The drawings submitted in this competition shall be securely wrapped, flat or in a strong tube not less than 3" in diameter, to prevent creasing or crushing and addressed in plain lettering to *Pencil Points Press, Russell F. Whitehead, Professional Adviser, 19 East 24th Street, New York, N. Y.* No other lettering shall appear on the wrapper. Contestants sending drawings by registered mail must obliterate the return name and address and not demand return receipt.

Drawings shall be delivered not later than 5 P. M. Monday, March 14th, 1927.

Drawings delivered to Post Office or Express Companies in time to reach destination and be delivered within the hour set for final receipt will be accepted if delayed by no fault of the competitor. The receipt stamp will serve as evidence.

Drawings submitted in this competition are at the competitor's risk. Reasonable care, however, will be exercised in their handling, keeping and package for return.

**EXAMINATION OF DESIGNS:** The Professional Adviser will examine the designs and records of their receipt to ascertain whether they comply with the mandatory requirements of the Program and will report to the Jury any instance of failure. The Jury will satisfy itself of the accuracy of the report and will place out of the competition and make no awards to any design not complying with mandatory requirements.

**JUDGMENT:** The Jury of Award will meet at The Homestead, Hot Springs, Virginia; April 1st, 2nd and 3rd, 1927.

**ANNOUNCEMENT OF THE AWARDS:** The Professional Adviser will send by mail, the names of the winners of the Prizes and Mentions, to each competitor, as soon as possible after the awards have been made and the envelopes have been opened. The announcement will also be published in the May issue of *PENCIL POINTS*. Requests for this information by telephone and telegraph will not be answered.

**REPORT OF THE JURY:** The Jury will make a full report, stating the reasons for the selection of the winning designs and offering helpful criticism and comment upon designs not premiated. This report will be published in *PENCIL POINTS* along with the reproductions of the winning designs and such additional designs as may be selected.

**THE PRIZE DESIGNS:** Are to become the property of *PENCIL POINTS* and the right is reserved by this publication and by the Sponsors to publish or exhibit any or all of the designs not premiated. In every case where a competitor's design is shown his or her name and address will be given.

**RETURN OF DRAWINGS:** The Authors of non-premiated designs will have their drawings returned, postage prepaid, insured for \$50.00 unless the competitor makes other provision.

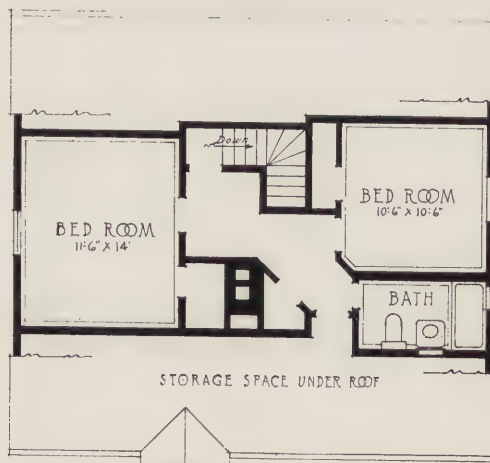




Perspective



First Floor



Second Floor

HOUSE AT WOODS OF LARCHMONT, NEW ROCHELLE, N. Y.  
JOSEPH McCoy, Architect



# THE SPECIFICATION DESK

## A Department for the Specification Writer

### THE SPECIFICATION WRITER AND HIS QUALIFICATIONS

By Raoul C. Gautier

OTHERS HAVE GIVEN US typical specifications for all branches of work, have told us how they write their specifications, have given their general ideas with regard to specifications, and specification writers, but no one to my knowledge has emphasized the qualities needed by the specification writer and particularly the pitfalls which he should avoid. It is my purpose in this article to enumerate the former as I conceive them, and point out a few of the latter.

It goes without saying that the specification writer must have a theoretical and practical knowledge of materials and building construction, and it is not my intention to discuss these qualifications here but rather to confine myself to what might be called the "business like" qualifications which it seems to me he must possess if he would be successful.

1. HE MUST BE DEFINITE. Of all qualifications, definiteness is the most essential and, unfortunately, the most generally lacking. The specification writer should be able to make up his mind as to what he wants and what he will approve, and able to say it in the clearest and most concise way. He should use good English and know the difference between "shall" and "will" and between "to be" and "must" and he should completely discard the use of such meaningless expressions as: "must be done in accordance with the true intent and meaning of the specifications", "or equal", "must be finished in a neat and proper manner", "must be suitable", "must be done to the entire satisfaction of the architect", "must be done in the most workmanlike manner", "where and as directed", etc., etc., which expressions have found somehow their way in specifications, and which have no place anywhere except in the junk pile.

2. HE MUST BE ACCURATE AND SYSTEMATIC. Meaning that he must check, re-check, and re-check again, so that contradictory clauses do not appear in the specifications and so that the final proofs are free from clerical mistakes which may occur so easily in the process of copying.

It is not unusual, for example, to find that on a certain page of the specifications a certain finish is called for, while on another page an altogether different finish is specified for the same part of the building; or to find a complete description of some work which has no relation whatsoever to the building in question.

All this means a lot of labor and patience, but after all, it is worth it and one should be ashamed to send out specifications bearing such a clause as the following one taken from an actual set of specifications sent out, not by a foreign shyster as one might think, but by a leading firm:

"All clean earth, sand and gravel taken from the excavation not required for filling the Contractor shall remove same from the premises and dispose of by the Contractor."

3. HE MUST BE FAIR AND REASONABLE. It seems difficult for certain specification writers to place themselves in the contractor's shoes with the result that some specifications are sent out for figures, bearing the most remarkable unbusinesslike clauses; so unbusinesslike at times that it would be laughable, were it not so sad.

What business man outside of the realm of the construction world would think of incorporating in a contract a clause such as that calling upon the contractor, "To furnish all labor and material necessary or proper to the completion of the work, whether or not shown on the drawings or called for in the specifications", also telling the contractor in the same breath that, "The architect shall be the sole judge of what is required to complete the work".

Another good, or rather bad, example is that of the specification writer telling the contractor to, "Excavate to the levels shown on plans, but if the ground at those levels is not suitable for foundations, he, the contractor, shall have to go further down without extra charge until a satisfactory bearing is reached".

A strict interpretation of such clauses, examples of which could be increased tenfold, would lead very far indeed!

4. HE MUST BE ACQUAINTED WITH LOCAL CONDITIONS. In these days of specialization, a great deal of the work has to be sublet as everyone knows, and the field of each sub-contractor is pretty well defined. Therefore, for the benefit of all concerned, it is a good plan to incorporate under a certain heading only what the sub-contractor, handling this particular work, will do; it is a great help in estimating, and later on, in purchasing.

It is true, for example, that metal covered doors are built by sheet metal workers, but it is troublesome to find that "Metal covered doors" are specified under "Sheet metal work". It is also annoying to get specifications in which "Steel sash" is specified under "Miscellaneous Iron" etc., etc.

The job of specification writing is a very difficult job and one which requires a considerable amount of experience, and I believe that some of this experience should be obtained as estimator in a general contractor's office. Besides the specification writer, the estimator is, in my mind, the one who actually comes the most closely in contact with the specifications, and as it is his job to interpret them day after day, he soon learns what the contractor is up against when he must prepare an estimate, on which he risks his reputation and his money, from specifications which are not definite, accurate, fair or reasonable and written in accordance with local customs. The experience thus acquired is bound to prove invaluable when applied to the writing of specifications.

The French say "La critique est aisée, mais l'art est difficile", which is only too true, particularly of specification writing, and as I have criticized a good deal, I would like to say, in conclusion, that in the course of my career, I have sweated blood, writing specifications as well as reading them, and that perhaps under the circumstances, criticisms may be permitted for the sake of the "Art".

#### THE PRODUCERS' RESEARCH COUNCIL

##### THIRD SEMI-ANNUAL MEETING

THE PRODUCERS' RESEARCH COUNCIL, affiliated with The American Institute of Architects, has held its Third Semi-Annual Meeting at the Hotel Coronado, St. Louis, on November 4th, 5th and 6th. This was a most successful meeting, as owing to the strong endorsement given to the work of the Council by the last Convention of the Institute, the members were able to make this program very constructive. A number of prominent St. Louis architects addressed the meeting, and their remarks were most highly appreciated.

It is generally felt that much interest was created and good accomplished by all of the work done at the various sessions.

Mr. James P. Jamieson, President of the St. Louis Chapter, opened the meeting with hearty words of welcome.

Mr. N. Max Dunning, of Chicago, Chairman of the Structural Service Committee, A. I. A., gave a very interesting talk, on the first afternoon, on the conditions which brought about the formation of the Council, as the result of lessons learned during the war, showing the necessity of cooperation in all branches of the industry.



It was out of that germ of thought that there was need of a point of contact, that there came the first affiliation between strictly professional and business bodies to make the Producers' Council. He complimented the members of the Council on the work already accomplished, and felt that even now the importance of this movement was hardly realized. He brought out the question of manufacturers' specifications, which must be intelligently written and mention the best methods to be used for the purposes intended, as often the best of materials are used in the wrong places. He mentioned a problem which should appeal to all classes of industry, and as a responsibility that cannot be dodged, the fact that the white collar class is being forced out of the newer class of multi-family dwellings by the skilled mechanics, whose income is far exceeding the clerical workers. He mentioned the increase in the cost of labor and material in the last ten years as compared to the total cost of buildings, and showed that there has been as a result a great increase in efficiency in building operations.

During the business session there was a discussion upon the proposal as to the advisability of dropping the word "Research" from the name of the Council, as being somewhat misleading. Action was taken on this point, subject to the approval of the Board of Directors of the Institute.

At the evening session, addresses were made by four prominent St. Louis architects—Mr. E. J. Russell, on "Standardization of Specifications"; Mr. W. B. Ittner, expressing his ideas on how he would proceed if he were a manufacturer of building materials, so as to get the best point of contact with architects in the way of following out their requirements; Mr. Louis LaBeaume, on "Architectural Expositions"; and Mr. Oscar Mullgardt, on "Services which could be rendered Architects by Manufacturers". Mr. Dunning also spoke again.

Mr. Russell mentioned the great improvement in conditions in the architect's office, due to standardization of materials, such as cement, tile, slate, and lumber, which conserve the architect's time in asking selections. He mentioned the building industry as being the second largest industry in the country, and as slowly but surely coming to be so recognized. He brought out the thought that individual manufacturers cannot do things by themselves, but that what neither they nor the architects alone can accomplish, can be done by cooperation of the two branches of the industry.

Mr. Ittner made a fervent plea for the revival of personal craftsmanship in this day of artificiality and standardized manufacture. He felt that we are losing the art of fine craftsmanship. He also felt it very commendable that leaders in the manufacture of building materials should be willing to cooperate with the members of the Institute in their problems, and that while the Council was not great in numbers, it contained names of leaders in the building industry. He mentioned the education of the public in matters of art, which would require the producers

to supply better and more beautiful things in the future. He felt that the latter should take the initiative on that point.

Mr. LaBeaume mentioned the value of architectural expositions to architects who could find time to attend. He mentioned the great mass of wasteful advertising, but felt that a great deal of useless phraseology and immaterial matter is now being taken out of advertising, much to its benefit. He complimented the members of the Council on their efforts to improve this condition. He felt that informative literature is of the greatest aid to architects, especially in the smaller towns, where manufacturers' representatives are not always available for giving this information.

Mr. Dunning expressed the opinion that the Council movement fostered by the Institute would prove to be the greatest thing done in this generation to improve relations between the architects and producers and provide a working basis of cooperation.

Mr. Mullgardt brought out the problem of the architect whose practice is expanding and changing from small work to larger work and the problems which he must encounter, and on which it is difficult for him to get proper information. He felt that this was a real opportunity for the manufacturers to do something in the way of conserving the architect's time in getting such authoritative information, also in dealing with the salesmen.

Mr. LeRoy E. Kern, Technical Secretary of the Scientific Research Department of the Institute, gave a very interesting illustration of applying efficiency to the design of a small house, resulting in a saving in cost, but absolutely destroying the beauty of the structure.

Various members of the Council talked on interesting subjects, which opened a general discussion. Mr. Scott Button spoke relative to architectural specifications from the standpoint of the manufacturer, and one particular point he covered was the specifying by architects of unnecessary and unimportant matters in connection with large units of apparatus, which took up a great deal of space in the specifications, and which should be left to the manufacturer of the entire unit, who must guarantee his product.

Mr. Lane spoke on the subject of architectural expositions from the side of the exhibitor, bringing out the difficulty in getting architects to attend. Mr. Adam and Mr. Coulton brought out the efforts being made on the part of manufacturers towards meeting the wishes of the architect in material and design, and in matters of information.

Mr. Perry brought out the improvement in advertising matter, due to the efforts of the Council, and Mr. Byington opened up the interesting subject of conserving the time of the architect in calls of manufacturers' salesmen.

Mr. Edwin W. Ely, of the Department of Commerce, Washington, presented a very interesting lecture, with lantern slides, on the subject of "Simplified Practice and its Place in the Industrial Movement".

## PUBLICATIONS OF INTEREST TO THE SPECIFICATION WRITER

*Publications mentioned here will be sent free, unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

**Minwax Flat Finish.**—A. I. Classification File No. 25-c-11. Color card and specifications with twelve panels in full colors covering flat finish for wood floors and trim. Minwax Co., 10 E. Huron St., Chicago, Ill.

**Period Adaptations for Modern Floors.**—Handsome brochure covering subject indicated with color plates, a series of photographic studies of the various important periods and a section devoted to the question of proper floors, both in design and materials for various classes of buildings. 8½ x 11. 60 pp. U. S. Rubber Co., 1790 Broadway, New York.

**The New Comfort.**—Booklet illustrating and describing the Socony Arrow Oil Burner. Contains illustration of complete installation. 8½ x 11. 20 pp. Socony Burner Corp., 26 Broadway, New York.

**Winter Concrete.**—A. I. A. File No. 3-a-1. Booklet illustrating and describing Atlas Lumnite Cement for special use in winter construction. Charts showing compression tests and temperature records, suggestions for using Lumnite Cement. 8½ x 11. Atlas Lumnite Cement Co., Inc., 25 Broadway, New York.

**Sylphon Heating Specialties.**—Catalog No. 200 contains heating and temperature regulating specialties, fully illustrated and described. Price lists, tables of dimensions, specifications, cross sections, etc. Very handy and useful booklet. 192 pp. 4 x 7. Stiff cover. The Fulton Co., Knoxville, Tenn.

*Published by the same firm, "Bulletin T-107, The Value and Practicability of Temperature Control in the Tannery", "Bulletin T-109 Automatic Temperature Control in Textile Processing", Bulletin T-104 Special Temperature Regulators for Automatically and Accurately Regulating Temperature of Liquids and Air", and "Bulletin T-110 Temperature Regulators for Automatically and Accurately Regulating Temperature of Liquids and Air Applied to Hotels, Schools, Theatres, Institutions, Etc."*

**Cornell Rolling Doors.**—A. I. A. File No. 16-D-13 Catalog illustrating and describing steel rolling shutters and doors, underwriters labeled rolling fire doors and shutters. Complete dimension diagrams, specifications, perspectives. 32 pp. 8½ x 11. Cornell Iron Works, 71 Marion Street, Long Island City, N. Y.



**Quick Hardening Concrete.**—Booklet containing a practical consideration of products, methods and results and costs. 20 pp. 7 x 10. North American Cement Corp., Hagerstown, Md.

**Out of the Mud with Lime.**—Bulletin 317. Attractively printed bulletin, well illustrated, showing clearly the steps involved in constructing earth roads so as to eliminate mud and ruts. 16 pp. 6 x 9. National Lime Assn., 918 G Street, N. W. Washington, D. C.

**Crodon for Plumbing Fixtures, Bathroom Accessories and Builders' Hardware.**—Booklet illustrating and describing a new type of finish for high-grade fixtures. 6 x 9. 10 pp. Chromium Corp. of America, 26 Broadway, New York.

**Analyzing the Success of Winter Construction.**—Interesting pamphlet on this subject. 8½ x 11. Portland Cement Assn., 33 W. Grand Ave., Chicago, Ill.

*Published by the same firm, "Winter Construction with Concrete Masonry" and "Concreting in Cold Weather".*

**Athey Shades.**—Folder (A. I. A. File No. 28-E) containing specification and samples of fabrics for Athey shades in very convenient form. 9 x 12. Athey Co., 6032 W. 65th St., Chicago, Ill.

**The Kewanee Radiator, Slim Type.**—Supplement to Catalog No. 77. Illustrates and describes this particular type of radiator. Roughing-in measurements for Kewanee five-column radiator. 6 x 9. Kewanee Boiler Co., Kewanee, Ill.

**Wooster Safe-Groove Stair Tread.**—A. I. A. File No. 14-d-1. Pamphlet illustrating and describing this type of stair tread for schools, office buildings, hotels, factories, railways, hospitals, steamships, etc. Full size cross-sections. 8½ x 11. The Safety Stair Tread Co., Wooster, Ohio.

*Published by the same firm, "New Stairs for O'd" A.I.A. File No. 14-d-1, "Wooster Security Nosing" A.I.A. File No. 14-d-2.*

**Norton Floors.**—Booklet dealing in an interesting way with Norton floors for colleges and showing the installation of the swimming pool at Worcester Polytechnic Institute. A. I. A. File No. 23-a-1. Norton Co., Worcester, Mass.

**Through the Ages.**—Monthly magazine dealing with marble for both exterior and interior use. The October issue contains the Young-Quinlan Building, Minneapolis. Frontispiece in color showing grand staircase. Also French Renaissance Architecture, List of the world's marbles and many other interesting features. 67 pp. 8½ x 11. National Association of Marble Dealers, 648 Rockefeller Bldg., Cleveland, Ohio.

**G-F Waterproofing Handbook (7th Edition).**—Describes effective and economical methods for waterproofing concrete and all forms of masonry both above and below grade, for preserving decorative effects, exterior and interior, for protecting finished surfaces, whether wood, plaster, concrete or metal against water, wear and stains. Specifications. 72 pp. 8½ x 11. General Fireproofing Building Products Co., Youngstown, Ohio.

**Making Markets.**—A magazine of sales information and inspiration regarding sheet steel. 18 pp. 6 x 9. Published by the Sheet Steel Trade Extension Committee Oliver Bldg., Pittsburgh, Pa.

*Published by the same firm, "Sheet Steel Service" monthly magazine for the service of all sellers, distributors and users of sheet steel.*

**Economy in Oil Burner Installation.**—Folder illustrating and describing The International Economy Boiler as used in connection with oil burner installations. International Heater Company, Utica, N. Y.

**Plug Receptacle and Safety Switch Condulets.**—Folder illustrating and describing this type of condulets. Crouse-Hinds Co., Syracuse, N. Y.

**The Painters' Eagle.**—Interesting little magazine containing article on "Refinishing with Enamels" and other matter. 24 pp. 5½ x 9. The Eagle-Picher Lead Company, 134 No. La Salle St., Chicago, Ill.

**Savings in Valve Maintenance.**—Folder illustrating the old expensive way and the new and better way. Price List. Goetze, Gasget & Packing Co., Room 380, 50 Church St., New York.

*Published by the same firm, "How to Save Pipe-Fitting Costs".*

**The Charm of the Sovereign Wood.**—Handsome brochure beautifully illustrated in sepia with text by J. H. Townshend, Executive Vice-President, on the subject of Oak. Many notable examples of period and early American treatments as applied to interiors. Also contains examples of period and early American furniture, showing illustrations of Oak Antiques in the Metropolitan Museum of Art in New York. A valuable addition to the architect's library. 7½ x 10½. 79 pp. Hardwood Manufacturers Institute, Memphis, Tenn.

**Refrigerated Drinking Water for Mills, Factories, Shops, Hotels, Hospitals, Schools, Institutions, Public and Office Buildings, Stores, etc.**—A. I. A. Classification 34-i-3. Catalog illustrating and describing various systems for refrigerated drinking water system. Typical office building installation of refrigerated drinking water system. Specifications, specimen calculation, tables, etc. 7½ x 11. 52 pp. Armstrong Cork & Insulation Company, Pittsburgh, Pa.

*Published by the same firm, "The Building Contractor's Book on Armstrong's Corkboard for the Insulation of Residential Buildings".*

**Valve Economy.**—Booklet illustrating and describing Homestead Valves and accessories. Sectional views. 24 pp. 3½ x 6. Homestead Valve Mfg. Co., Homestead, Pa.

**Daylight Control Plus Ventilation.**—Handsome and interesting booklet on the subject of control daylight and ventilation with Western Venetian Blinds. Points out the features of better service by illustration, shows typical installations, construction, treatment for two of the common types of circular head windows, how to measure, skylight blinds, blinds for doors, hinges, transoms, etc. Very useful document. Beautifully illustrated. 63 pp. 8 x 11. Western Venetian Blind Co., Los Angeles, Calif.

**Bull Dog Safety Fusenters-Saftofuse.**—Bulletin No. 107 (supersedes Nos. 102-3-4-5) illustrates and describes these types of fuses and combinations of both. Tables, diagrams. Bull Dog Mutual Electrical & Machine Co., Detroit, Mich.

**American Blower Air Filter.**—Bulletin No. 2223 illustrates and describes this type of air filter. Installation data, dimensions and capacities tables, applications. American Blower Co., 6004 Russell St., Detroit, Mich.

**Vault Ventilator.**—A. I. A. Folder No. 30-D containing information on this ventilator. Diagrams, cross sections, description, operation, installation. O. B. McClintock Co., Minneapolis, Minn.

*Published by the same firm, "Sound Wave Bank Vault Protection".—A.I.A. File No. 31-i-3-2. Illustrates and describes the most modern alarm protection for bank vaults. These two folders have been prepared for the architect's file. Corresponds in size and character to the recommendations of the American Institute of Architects.*

**Radiator Hangers.**—Folder containing detailed information and description of these hangers. Specifications. A. I. A. Classification No. 30-c-42. Prepared especially for architect's file. The Little Giant Mfg. Co., 1927 Nicollet Ave., Minneapolis, Minn.

**The Economy Grate and Equipment.**—Catalog illustrating and describing this type of grate. Typical installation. Results of some engineering tests of Economy Grate installations. 16 pp. 5½ x 8. Economy Grate & Equipment Co., Inc., 410 East 34th Street, New York.

**Floor Tile Data Sheets.**—A. I. A. Classification 23-d. Interesting sheets on Davanzati Floor Tile and Italian Promenade Floor Tile. The Heinz Roofing Tile Co., Denver, Colo.

**"Copper Bearing Steel Resists Corrosion."**—Treatise containing facts, figures and photographs showing the marked rust-resisting properties of steel containing a percentage of copper. Compiled by Robert D. Snodgrass, consulting engineer. 15 pp. 8½ x 11. Truscon Steel Co., Youngstown, Ohio.

*Published by the same firm, "Truscon Solid Steel (Model "A") Double-Hung Windows."—A.I.A. File No. 16-e-1 Catalog No. 680 presenting details, features, specifications, drafting-room standards and illustrations. .25 pp. 8½ x 11.*

**Garage Design Data.**—A very interesting series of Data Sheets covering garage planning and construction. Many drawings are included as well as other information on garages of all sizes and for all purposes. Standard filing size. 8½ x 11. Punched for loose-leaf folder. Ramp Buildings Corp., 21 East 40th St. New York City.

**Gypsum History—A Great Romance.**—An interesting account of the development of Gypsum by H. J. Schweim, chief engineer of the Gypsum Industries. This document together with standard specifications covering the mixing and application of gypsum plaster will be sent free by the Gypsum Industries, 844 Rush St., Chicago, Ill.

**The Miles Automatic Furnace Fan.**—Catalog No. 8 describes completely the method of heating buildings by the combination of a fan with a hot air furnace. Data is included on many different types of buildings for which this modern type of heating may be advantageously considered. Specifications, technical data and complete information on the subject. Warm Air Furnace Fan Co., 6511 Cedar Ave., Cleveland, Ohio.

**Sewage Ejectors and Pumping Machinery.**—Loose-leaf data folder A.I.A. File No. 29-c-1 containing a series of well prepared practical bulletins on all phases of this subject, as applied to service in buildings. A most valuable series of documents for the specification writer and others having to do with the selection of equipment. Standard filing size, 8½ x 11. Yeomans Brothers Company, 1433 Dayton Street, Chicago, Ill.

**"Wiremold Wall Chart."**—Valuable information on the Wiremold Conduit System as applied to buildings with installation data and full particulars. 8½ x 11. The Wiremold Co., Hartford, Conn.

**Decorative Possibilities of Paint.**—A.I.A. File No. 25-D-3. Booklet containing a selection of designs and description of methods for securing many desirable and attractive effects. National Lead Co., 111 Broadway, New York.

*Published by the same firm, "Standard Specifications for the Use of White Lead Paint". A useful document in the specification writer's file.*

**Valve Tabulation Sheet.**—Data sheet giving important information on bronze and iron valves. Scott Valve Mfg. Co., 3963 McKinley St., Detroit, Mich.





# PENCIL POINTS



## INDEX TO VOLUME VII

January to December, inclusive, 1926

### ARTICLES

ARCHITECTS PROFESSION, THE <i>J. Guadet</i> .....	391
ARCHITECTURAL USES FOR LITHOGRAPHY <i>Kenneth Reid</i> .....	205
ARCHITECTURAL SUPERINTENDENCE <i>W. E. Parfitt</i> .....	223
BE YOUR OWN BRICK SCHEDULE <i>J. Woolson Brooks</i> .....	433
BUILDING ON THE BOARD, A <i>Dennison &amp; Hiron</i> .....	291
BUILDING ON THE BOARD, A II <i>Arnold W. Brunner Associates</i> .....	669
COMPOSITION IN THREE DIMENSIONS <i>Leo Friedlander</i> .....	45
DESIGN IN THE DRAFTING ROOM, PART VI <i>John C. Breiby</i> .....	19
DESIGN AND CONSTRUCTION OF STAINED GLASS WINDOWS, THE <i>Alfred E. Floegel</i> .....	459
DESIGN OF LITURGICAL VESTMENTS, THE <i>Walter A. De Sager</i> .....	561
DRAFTING ROOM PRACTICE, PART III <i>Harold D. Way</i> .....	93
DRAFTING ROOM PRACTICE, PART IV <i>Harold D. Way</i> .....	177
DRAFTSMAN AND ARCHITECT <i>J. Monroe Hewlett</i> .....	521
DRAFTSMAN TURNED ETCHER, A <i>Kenneth Reid</i> .....	649
DRAFTSMAN'S CHRISTMAS CARD, THE .....	662
FORTY-FIRST ANNUAL EXHIBITION OF THE ARCHITECTURAL LEAGUE OF NEW YORK, THE .....	105
FRENCH COMRADES IN AMERICA—JACQUES CARLU <i>Edmund S. Campbell</i> .....	267
GENESIS OF MEASURED DRAWINGS, THE <i>Kenneth Clark</i> .....	331
MASTER DRAFTSMEN XVII HENRY HORNPOSTEL <i>Francis S. Swales</i> .....	73
“ “ XVIII CASS GILBERT <i>Francis S. Swales</i> .....	583
“ “ XIX THOMAS MACLAREN <i>Duncan McLachlan</i> .....	711
PEN DRAWING, CHAPTER I AND CHAPTER II <i>Arthur L. Guptill</i> .....	471, 599
PERMANENCY OF COLOR, THE <i>F. W. Weber</i> .....	237
PICTURE MAPS <i>Fred Dana Marsh</i> .....	41
PICTURESQUE ARCHITECTURE IN FRANCE (LITHOGRAPHS BY THOMAS SHOTTER BOYS) <i>Carl Zigrosser</i> .....	395
PIRANESI, GIOVANNI-BATTISTA .....	227
QUIET BUILDINGS <i>Vern O. Knudsen</i> .....	559
RELATIONSHIP BETWEEN ARCHITECT AND DRAFTSMAN, THE <i>R. Clipston Sturgis</i> .....	457
<i>Edwin H. Hewitt</i> .....	581
<i>Charles D. Maginnis</i> .....	645
<i>Irving K. Pond</i> .....	709
RENDERINGS OF AN EARLY MASTER—DAVID ROBERTS <i>Kenneth Clark</i> .....	3
RENDERINGS OF AN EARLY MASTER, PART II, SKETCHES IN SPAIN—DAVID ROBERTS <i>Kenneth Clark</i> .....	171
RICKER MANUSCRIPT TRANSLATIONS <i>Thomas E. O'Donnell</i> .....	621
RICKER MANUSCRIPT TRANSLATIONS, I—GUADET <i>Thomas E. O'Donnell</i> .....	665

ROMAN ALPHABET, THE <i>Frederick W. Goudy</i> .....	735
RUBBINGS, OF THE MAKING OF <i>Leon Keach</i> .....	301
SELECTION OF A STATION POINT, THE <i>John W. Dawson</i> .....	161
SHOP DRAWINGS, MILLWORK <i>W. E. Schlingens</i> .....	473
SILHOUETTES OF AMERICAN DESIGNERS AND DRAFTSMEN, II—GERALD K. GEERLINGS <i>Gerald K. Geerlings</i> .....	143
SILHOUETTES OF AMERICAN DESIGNERS AND DRAFTSMEN, III—RICHARD M. POWERS <i>Hubert G. Ripley</i> .....	523
STUDYING IN THREE DIMENSIONS <i>Maurice Gauthier</i> .....	407
SUMMER SKETCHING—SYMPOSIUM <i>Otto F. Langmann</i> .....	341
<i>J. Scott Williams</i> .....	341
<i>Kenneth Reid</i> .....	341
TYING DOWN THE OWNER <i>Aymar Embury II</i> .....	29
WROUGHT IRON PRECEDENT I, II, III, IV, V <i>Gerald K. Geerlings</i> .....	353, 417, 543, 605, 727

### AUTHORS

BREIBY, JOHN C. Design in the Drafting Room, Part VI .....	19
BROOKS, J. WOOLSON Be your own Brick Schedule .....	433
BRUNNER, ARNOLD W., ASSOCIATES A Building on the Board II .....	669
CAMPBELL, EDMUND S. French Comrades in America—Jacques Carlu ...	267
CLARK, KENNETH The Genesis of Measured Drawings .....	331
The Renderings of an Early Master—David Roberts .....	3
The Renderings of an Early Master, Part II—David Roberts .....	171
DAWSON, JOHN W. The Selection of a Station Point .....	161
DE SAGER, WALTER A. The Design of Liturgical Vestments .....	561
EMBURY II, AYMAR Tying Down the Owner .....	29
FLOEGEL, ALFRED E. The Design and Construction of Stained Glass Windows .....	459
FRIEDLANDER, LEO Line Drawing Composition in Three Dimensions .....	45
GUADET, J. The Architect's Profession .....	391
GAUTHIER, MAURICE Studying in Three Dimensions .....	407
GEERLINGS, GERALD K. Wrought Iron Precedent, I, II, III, IV, V .....	353, 417, 543, 605, 727
Silhouettes of American Designers and Draftsmen, II .....	143
GOUDY, FREDERICK W. The Roman Alphabet .....	735
GUPTILL, ARTHUR L. Pen Drawing, I, II .....	471, 599
HEWITT, EDWIN H. The Relationship Between Architect and Draftsman .....	581
HEWLETT, J. MONROE Draftsman and Architect .....	521



## PENCIL POINTS

EGGERS, OTTO R.	
Rendering in Water Color and Colored pencil	
"House in Westchester County" .....	June
Rendering in Water Color and Colored pencil	
"University Baptist Church, Baltimore,	
Md." .....	Aug.
FREEMAN, O. R.	
Rendering in Color Pencil and Opaque Water	
Color, "Seaside Hotel, Atlantic City" .....	Dec.
GEERLINGS, GERALD K.	
Opaque Water Color Sketch "Octavius' Arch,	
Rome" .....	Mar.
GILBERT, CASS	
Water Color Sketch "Carcassonne" .....	Jan.
Water Color Sketch "Cathedral Cloister,	
Monreale" .....	Oct.
Water Color Sketch "A Court Yard, Leices-	
ter Hospital, Warwick" .....	Oct.
GREENLEY, HOWARD	
Rendering in Opaque Water Color "Show	
Room of Colgate & Co., New York" .....	June
KEALLY, FRANCIS	
Sketch "Alteration to Victorian House at	
Sparkhill, N. Y." .....	Feb.
LE BOUTILLIER, A. B.	
Rendering in Water Color "Library Interior" ..	Nov.
LONG, BIRCH BURDETTE	
"The Cathedral Church of St. Cecelia, Albi,	
France" .....	Feb.
Lithographic Rendering "Tower of Hotel	
Shelton" .....	Apr.
"Panama California Exposition" .....	Aug.
MAGONIGLE, H. VAN BUREN	
Rendering in Water Color, "The Perry	
Memorial" .....	Dec.
ROWE, JOHN RICHARD	
Lithographic Rendering, "Forty-Second Street,	
New York" .....	Apr.
TREIDLER, ADOLPH	
Rendering in Gouache, "Residence for Mrs.	
Clyde Carr, Lake Forest, Ill." .....	Mar.
WILSON, JAMES PERRY	
Rendering in Oil "Summer Moonlight" .....	Jan.
WITTON, FREDERICK R.	
Pencil and Water Color Rendering, "A Resi-	
dence at Hingham, Mass." .....	Nov.
YEWELL, J. FLOYD	
Rendering in Wash. "New York County	
Court House" .....	July
Water Color Rendering "Small House" .....	Sept.

## BIOGRAPHICAL SKETCHES

COMPETITIONS	
AMERICAN ACADEMY IN ROME FELLOWSHIP, <i>Winning Designs</i> .....	437
AMERICAN GAS ASSOCIATION (SMALL HOUSE COMPETITION) <i>Winning Designs</i> .....	481
COMPETITION FOR MEMORIAL HALL AND TOMB, NANKING, CHINA, <i>Winning Design</i> .....	689
JACOBSON ANNUAL COMPETITION FOR 1926, <i>Winning Designs</i> .....	371
LE BRUN TRAVELING SCHOLARSHIP FOR 1926, <i>Winning Designs</i> .....	309
PARIS PRIZE, NINETEENTH— <i>Winning Designs</i> .....	495
ROTCH TRAVELLING FELLOWSHIP FOR 1926, <i>Winning Design</i> .....	505

## CAMERA STUDIES

## CONSTRUCTION DETAILS

## COLOR RENDERINGS

BUEMMING & GUTH, ARCHITECTS		
Sherman Blvd. Congregational Church, Milwaukee .....	574	
DAY & KLAUDER, ARCHITECTS		
Peabody Museum of Natural History, Yale University .....	57	
DISE AND DITCHY, ARCHITECTS		
Small House .....	448	
FISHER, WM. AND A. A. ARCHITECTS		
Morey Junior High School, Colorado .....	701, 702	
McKIM, MEAD & WHITE, ARCHITECTS		
New Bellevue Hospital, N. Y. ....	623, 624	
Business Bldg., Columbia Univ. ....	640	



# PENCIL POINTS

OLMSTED BROS., LANDSCAPE ARCHITECTS	
Garden .....	508
Swimming Pool .....	509
UPJOHN, HOBART B., ARCHITECT	
Presbyterian Church, Fayetteville, N. C. ....	56

## COVER ILLUSTRATIONS

BISHOP, A. THORNTON .....	Aug.
FERRISS, HUGH .....	June, Nov.
GAUTHIER, MAURICE .....	May
JELINEK, SIDNEY .....	July
MACGREGOR, JAMES .....	Feb.
ROBERTS, DAVID .....	Mar.
ROWE, JOHN RICHARD .....	Dec.
RUZICKA, RUDOLPH .....	Jan., Sept., Oct.
TURZAK, CHARLES .....	Apr.

## HERE & THERE AND THIS & THAT

Pages: 59, 131, 195, 256, 320, 380, 443, 510, 569, 632, 695, 758

## MISCELLANEOUS RENDERINGS

DIAMOND, HENRY R.	
"First National Bank & Trust Co., Utica, N. Y." .....	190
GVOSDEFF, NICHOLAS	
"King Cotton Hotel, Queensboro, N. C." .....	191
HAGOPIAN, V.	
"Vanderbilt House" .....	690
ROSENBERG, LOUIS C.	
"Persian Building, at the Sesquicentennial" .....	434

## PENCIL SKETCHES, FULL PAGE

CHAMBERS, WALTER V.	
"Porte du Roi, St. Michel" .....	688
FERNANDEZ, J. A.	
"Church at Lisieux" .....	127
HECHENBLEIKNER, LOUIS	
"Site of Madison Square Garden" .....	374
"Building at 43rd St. & Lexington Ave., N. Y. C." .....	568
KAPPEL, PHILIP	
"Boothbay Harbor" .....	52, 53
NEDVED, RUDOLPH J.	
"Santa Maria Della Salute from The Traghetto" .....	126
SALWEY, JASPER	
"Truro" .....	253
"Boat Yard, Falmouth" .....	255
SIEFKEN, GEORGE W.	
"Rheims Cathedral" .....	506

## PLATES

AMATEIS, EDMOND R.	
Bas-Relief, "Madonna of The Jewel" .....	369
ARMS, JOHN TAYLOR	
Etching, "Lace" (Place Victor Hugo) .....	247
BINNING, ALAN	
Measured Drawing, "Palazzo Pompei, Verona" ...	101
"Wrought Iron Screen to Chapel of St. John Baptist-Siena Cathedral" ...	183
BISHOP, A. THORNTON	
Pencil Sketch "Court in Cefalu" .....	679
" " "Old Town Gate, Coca, Spain" .....	552
" " "Street on the Darro, Granada" ...	493
BLASHFIELD, EDWIN H.	
"Academia", Mural Painting .....	35
CIAMPAGLIA, CARLO	
Painting, "Design for Wall Paper Pattern" .....	305
Painted Screen, "The Chase" .....	555
Painting in Oil, "Design for an Overmantle" ....	427
CECERE, GAETANO	
Sculptured Panel, "Astoria, L. I., War Memorial" .....	747
Photograph "Pediment Group for Stambaugh Memorial Auditorium" .....	615

CHAMBERLAIN, SAMUEL V.	
Lithograph, "La Maison Du Saumon, Chartres" .....	554
Lithograph, "Vielle Maison, Rue St. Etienne Du Mont, Paris" .....	491
Lithograph, "The Old and the New", Paris .....	749
DE POSTELS, THEODORE	
Crayon & Pastel drawing "Interior of Pennsylvania Station" .....	613
DRAKE, WILLIAM	
Lithograph .....	677
EGGERS, OTTO R.	
Pencil Rendering, "Small Home Design" .....	243
FRISMUTH, HARRIET, SCULPTOR	
"The Vine" .....	39
GAUTHIER, MAURICE	
"Fontaine De La Crosse at Rouen", Measured Drawing .....	365
HAYWARD, ROGER	
Pencil Rendering "North Transept, Cathedral of St. John The Divine" .....	299
HERMAN, PAUL	
Measured Drawing, "A Doorway" .....	681
LETTERING FROM TRAJAN'S COLUMN .....	743
LONG, BIRCH BURDETTE	
Lithographic Rendering, "Ferncliff Cemetery Mausoleum" .....	683
MCCARTAN, EDWARD	
Statuette "Girl with Goat" .....	431
MACGREGOR, JAMES	
Pen & Ink sketch "Stokesay Castle" .....	99
Measured drawing of screen, "Holberton Church, Devonshire" .....	103
MACLAREN, T.	
Pencil Notes, "Porch, Collegiate Church, St. Andrews" .....	245
MAGNANTI, A.	
Rendering, "Ceiling of The Greenwich Savings Bank, N. Y." .....	181
PAIN, WM.	
From "The Builder's Companion" .....	165, 539
PENNELL, JOSEPH	
Mezzotint, "Cortlandt Street, Evening" .....	37
PIRANESI, GIOVANNI-BATTISTA	
"Arch of Marcus Aurelius" .....	362, 363
POWERS, RICHARD M.	
Pencil Rendering .....	617
PRENTICE, ANDREW N.	
"Renaissance Architecture and Ornament in Spain" .....	121, 185, 429, 488, 557
PRICE, CHESTER B.	
"Dining Room in Country Club, The Miami Biltmore" .....	490
"Mutual Benefit Life Insurance Bldg., Newark, N. J." .....	619
ROSENBERG, LOUIS C.	
"North Porch, Chartres" .....	367
RUZICKA, RUDOLPH	
Wood Engraving, "St. John's in Varick Street" ...	27
" " "Cornhill, Boston" .....	26
SMITH, F. HOPKINSON	
Charcoal Drawing, "St. Etienne Du Mont, Paris" .....	371
WEBSTER, HERMAN A.	
Etching, "Le Vieux Pont Notre Dame, Paris" ...	307
WILSON, A. L.	
Pencil Sketch, "Sunday at the Cathedral of St. John The Divine" .....	745
WOODBURY, C. O.	
Lithograph, "Street Scene, Innsbrook, Austria" ...	425

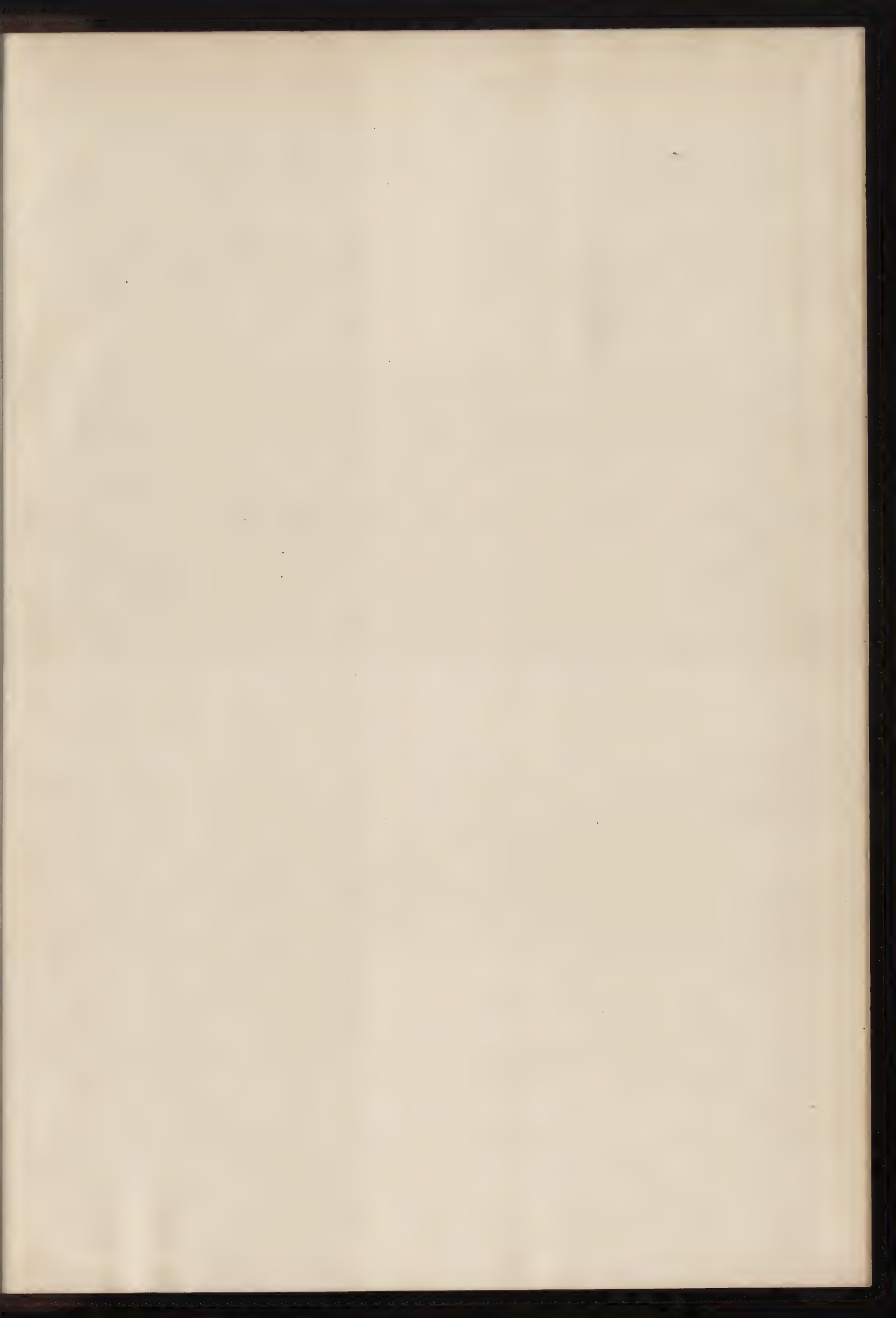
## SMALL HOUSE DESIGNS BY

EGGERS, OTTO R., Architect .....	243
EVERETT, CHARLES, Architect .....	694
FANNING, EDWARD F., Architect .....	379
GREGORY, JULIUS, Architect .....	447
MCCOY, JOSEPH, Architect .....	764
THIES, WALTER J., Architect .....	113
TREANOR & FATIO, Architects .....	636
WELSH, LEWIS E., Architect .....	58
YEWELL, JOHN FLOYD, Architect .....	573

## THE SPECIFICATION DESK

Pages: 63, 135, 199, 260, 324, 385, 449, 514, 575, 637, 703, 765

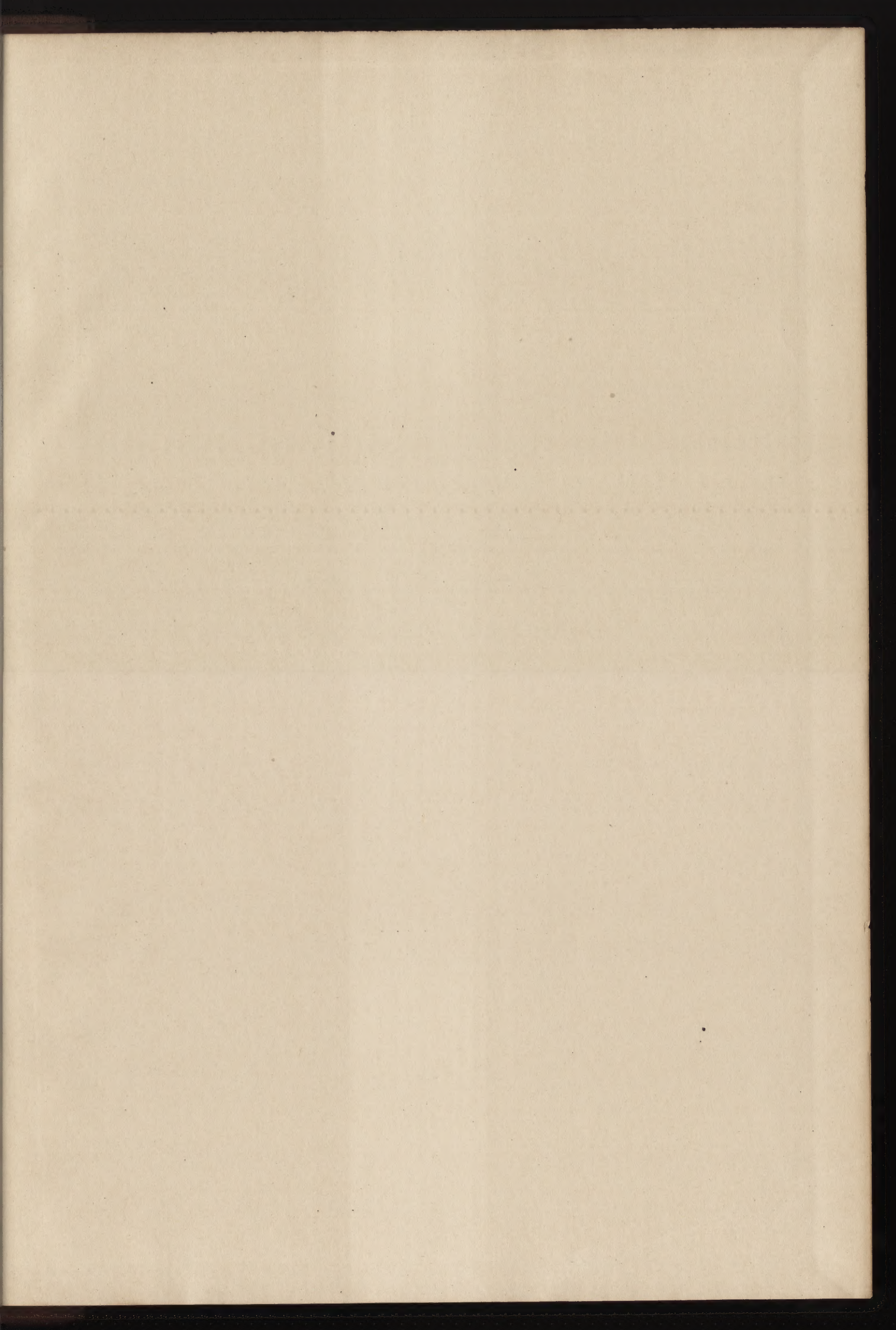


















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